6/1/1

Estimates of Area and yield of Principal Crops in India 1913-14 to 1916-17

00134321

BOMBAY BRANCH
OF THE
ROYAL ASIATIC SOCIETY.
TOWN HALL, BOMBAY.

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020

SIXTEENTH ISSUE

DEPARTMENT OF STATISTICS, INDIA

ESTIMATES

OF

AREA AND YIELD

OF

Principal Crops in India

1913-14

Published by order of the Governor General in Council

134321

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1915

PRICE FOUR ANNAS

Departmental Publications.

[Statistical Publications are obtainable from the Superintendent, Government Printing, India, Calcutta. Remittances should be made by postal or money order and should include forwarding charges, as indicated in brackets opposite each publication.]

DEPARTMENT OF STATISTICS, INDIA.

ANNUAL.

1. Review of the Trade of India. As. 8. (2*a*.)
2. Accounts relating to the Sea-borne Trade and Navigation of British India for the Calendar year. As. 8. (2*a*.)
3. Annual Statement of the Foreign Sea-borne Trade and Navigation of British India:—
   Vol. I.—Abstract and detailed Tables of Imports and Exports. ₹4. (₹1.)
   Vol. II.—Abstract and detailed Tables of Trade and Shipping with each country and at each Port; and the Tables relating to the trade of Aden and of the French and Portuguese Possessions of India. ₹3. (12*a*.)
4. Annual Statement of the Coasting Trade and Navigation of British India. ₹3. (7*a*.)
5. Accounts of the Trade carried by Rail and River in India. ₹1-12. (6*a*.)
6. Report on the Trade carried by Rail and River in Bengal. ₹3-8. (5*a*.)*
7. Report on the Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan. As. 14. (2*a*.)*
8. Prices and Wages in India. ₹2. (9*a*.)
9. Statistics of British India.—Part I.—Industrial, including Statistics relating to Factories, Mills, Mines, etc. ₹1. (4*a*.)
10. Statistics of British India.—Part II.—Commercial, including Statistics relating to Foreign Trade and Shipping, etc. ₹1. (4*a*.)
11. Statistics of British India.—Part III.—Commercial Services, including Statistics relating to Post Office, Railways, Telegraphs, etc. ₹1. (4*a*.)
12. Statistics of British India.—Part IV (*a*).—Finance and Revenue, including Statistics relating to Paper Currency, Coinage, Public Debt, etc. ₹1. (4*a*.)
13. Statistics of British India.—Part IV (*b*).—Finance and Revenue, including Statistics relating to Principal Heads of Revenue, Salt, Opium, etc. ₹1. (4*a*.)
14. Statistics of British India.—Part V.—Area, Population, and Public Health, including Statistics relating to Area, Population, Emigration, Births and Deaths, Vaccination, etc. ₹1. (4*a*.)
15. Statistics of British India.—Part VI.—Administrative and Judicial, including Statistics relating to Administrative Divisions, Civil and Criminal Justice, Registration, Police, Jails, etc. ₹1. (4*a*.)
16. Statistics of British India.—Part VII.—Educational, including Statistics relating to Education, Printing Presses, and Publications. ₹1. (4*a*.)
17. Statistics of British India.—Part VIII.—Local Funds, including Statistics relating to Municipalities, Local Boards, and Port Trusts. ₹1. (4*a*.)
18. Agricultural Statistics of India—
   Vol. I.—British India. ₹2-8. (12*a*.)
   Vol. II.—Native States. ₹1. (4*a*.)
19. Estimates of Area and Yield of principles Crops in India. As. 4. (2*a*.)

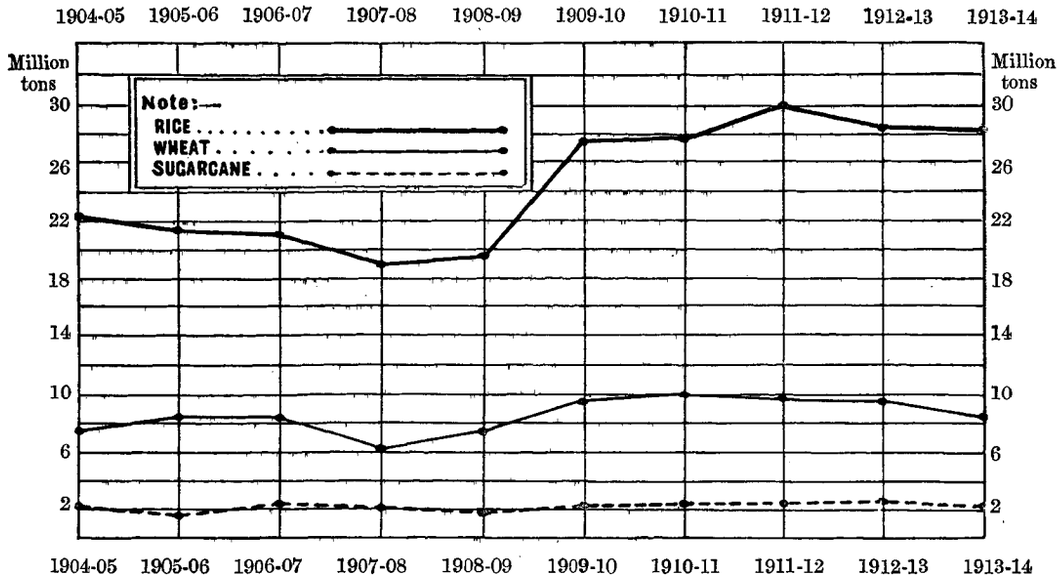
[Continued on page 3 of cover

BOMBAY BRANCH
OF THE
Royal Asiatic Society.

Yield of certain principal crops from 1904-05 to 1913-14

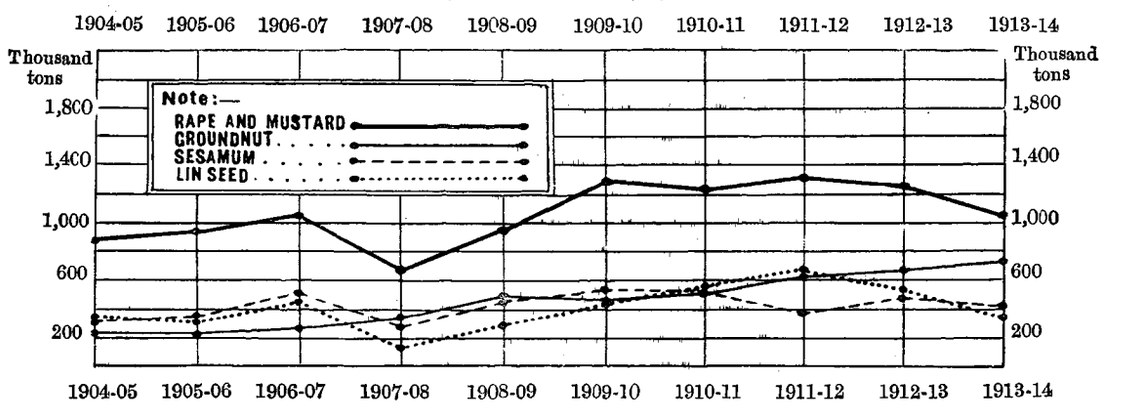
Rice, Wheat and Sugarcane

(in millions of tons)



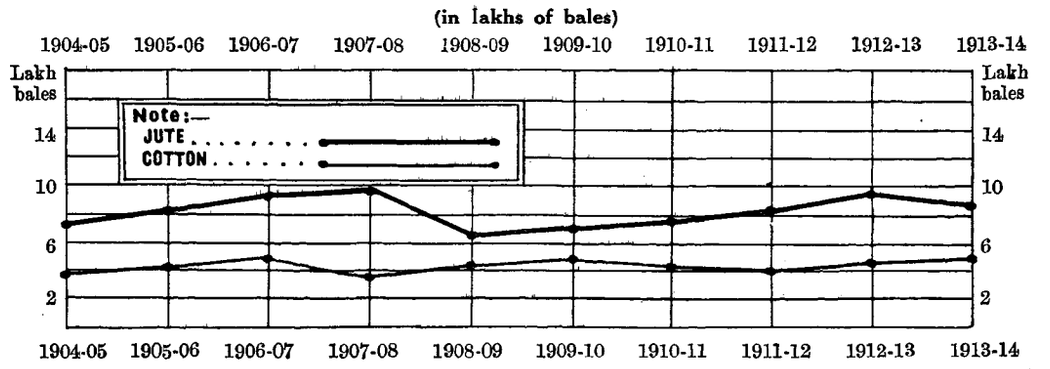
Sesamum, Linseed, Rape and Mustard and Groundnut

(in thousands of tons)



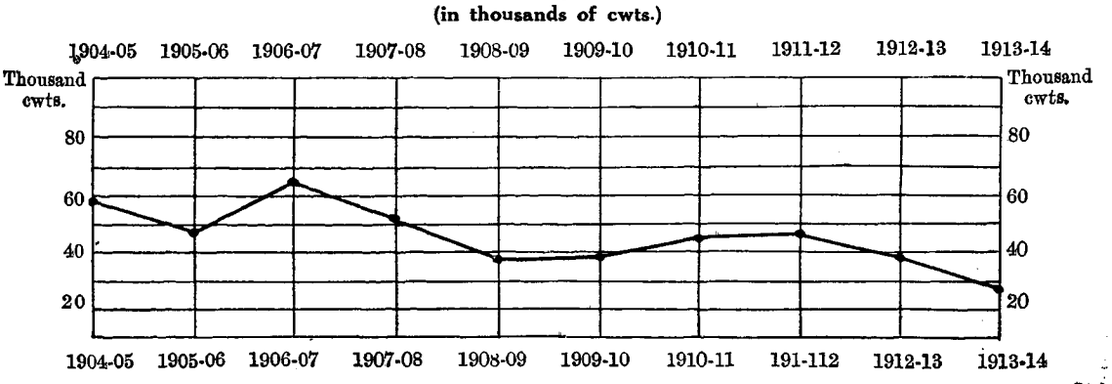
Cotton and Jute

(in lakhs of bales)



Indigo

(in thousands of cwts.)



SIXTEENTH ISSUE

DEPARTMENT OF STATISTICS, INDIA

ESTIMATES

OF

AREA AND YIELD

OF

Principal Crops in India

1913-14

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

Published by order of the Governor General in Council

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1915

PRICE FOUR ANNAS

CONTENTS

Introductory Note

	Page.
Source and scope of the estimates	1
Leading features of the season in respect of each crop	1—4
Charts illustrating the increase or decrease in yield of each crop in the last ten years	*frontispiece*

Tables

No.		
1.	Abstract table—Area and Yield of each crop	6
2.	Area and Yield of Rice in each province	7
3.	Area and Yield of Wheat in each province	8
4.	Area and Yield of Sugarcane in each province	9
5.	Area and Yield of Tea in each province	*ib.*
6.	Area and Yield of Cotton in each province	10
7.	Area and Yield of Jute in each province	11
8.	Area and Yield of Linseed in each province	*ib.*
9.	Area and Yield of Rape and Mustard in each province	12
10.	Area and Yield of Sesamum (til or jinjili) in each province	13
11.	Area and Yield of Groundunt in each province	14
12.	Area and Yield of Indigo in each province	*ib.*
13.	Yield per acre of each crop in each province	15
14.	Supplementary table—Area and Yield of Barley, Jawar, Bajra, Maize, and Gram in each province	16—17
	APPENDIX I.—Method of framing estimates of crops	19—20
	APPENDIX II.—Method of collecting the statistics province by province	21—23

Estimates of Area and Yield of Principal Crops in India, 1913-14

INTRODUCTORY NOTE.

The sixteenth issue of the "Area and Yield of Principal Crops in India" differs from its predecessors. The statistical tables have been reconstructed to show the provincial and all India total area and outturn at a glance. A series of charts, an introductory note, and an index for easy reference have been added to the volume. The delay in the publication of this issue is due partly to pressure of more urgent work owing to the war and partly to the reconstruction of the tables. It is hoped in future issues to publish the volume immediately after the final estimates of the season's crops are available.

Source and scope of the estimates.

The periodical estimates or forecasts of certain crops are compiled from local returns and issued by this Department. The general practice is to issue a preliminary forecast, a second estimate, and a third or final estimate—fuller and more precise in data than the two former forecasts. The figures in the tables in this volume are those given in the final forecasts. They show the area sown and the estimated yield in the last ten years of: rice; wheat; sugarcane; tea*; cotton; jute; linseed; rape and mustard; sesamum; groundnut; and indigo.

Gradual development.

The estimates for these crops did not, especially in the earlier years of forecasts in India, relate to the total producing areas, but only to those tracts where the respective crops were grown on an extensive scale. Tracts of minor importance have been added gradually as will be seen from the tables and the footnotes thereto. It should, therefore, be remembered that owing to this gradual development, the estimates in the forecasts for earlier years are not altogether strictly comparable with those for later years as is the case with the agricultural statistics of British India, published in Volume I of Agricultural Statistics of India. The increase in this respect, however, between the year under report as against the previous year is so small as to be negligible and to afford a comparison of the crops of the year (1913-14) with the preceding year. At present the estimates for cotton, wheat, and jute relate to all the tracts in India where these crops are grown to any extent, excluding certain unimportant outlying tracts, such as Baluchistan, Kashmir, Nepal, and Sikkim. For other crops, however, the estimates, though relating to all the British provinces where they are grown to any considerable extent (excepting Burma in the case of sesamum), still exclude the Native States, except those in the Bombay Presidency and the States of Hyderabad and Baroda in certain cases. Further details regarding the reporting tracts are given in paragraphs below and in Appendix II on pages 21-23.

Estimates, so far as available, for certain other staple crops, namely, barley, jawar, bajra, maize, and gram, have been shown in a supplementary table (No. 14), the figures being taken from the provincial Season and Crop Reports.

Leading features of the season: Rice.

Rice, which is generally regarded as a winter crop, is mainly harvested in December and January. It is sown from the month of May to August. The provinces to which the estimates for rice now † relate are Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, Assam, Bombay, Sind, and Coorg. These tracts comprise 93 per cent of the total rice area of British India. The only Native States for which estimates for rice are prepared are those in the Bombay Presidency. The total area under rice in all these tracts in 1913-14 was reported as 70,583,000 acres as compared with the 71,623,000 acres of the preceding year. The crop suffered more or less through drought in parts of the United Provinces, of Bombay, and of Bihar and Orissa, and from floods in parts of Bengal. Elsewhere the season was, on the whole, fairly favourable. The total estimated yield was 28,167,000 tons as against 28,485,000 tons.

* For the tea crop no forecast is prepared; the figures are taken from the Annual Report on the Production of Tea in India published by this Department

† The Central Provinces and Berar have started the preparation of rice forecasts with effect from 1914-15.

in 1912-13. To this figure should be added some 7 per cent in respect of other British provinces (containing about 5,400,000 acres under rice) for which no estimates are made.

Wheat.

Wheat, which is a *rabi* (spring) crop in India, is sown from October to December and harvested from March to May. The provinces and states to which the estimates for this crop relate are the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, the Central Provinces and Berar, Bombay, Sind, Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad, and Mysore. These contain practically the whole of the reported area under wheat in India. The total area under wheat in 1913-14 was reported to be 27,697,000 acres, which falls short of the area of the preceding year by 2,346,000 acres or 8 per cent. The seasonal conditions were favourable in the Punjab, which contains about a third of the total wheat area of India; but the crop suffered much through drought in some of the important wheat-growing districts of the United Provinces and the Bombay Presidency, as also in most of the Rajputana and Central India States. Elsewhere conditions were, on the whole, favourable. The total estimated yield was 8,427,000 tons, which was less than the final figure of 1912-13 by 1,426,000 tons or 14 per cent.

Sugarcane

The sugarcane crop is planted in February and March and harvested a year afterwards. The provinces* to which the reports on this crop relate are the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, Bombay, and Madras. These tracts contain 99 per cent of the total area under sugarcane in British India. Reports are also received from the Native States in the Bombay Presidency (including the Baroda State). No report is received from any other Native State. The total reported area (2,520,000 acres) under sugarcane in 1913-14 was nearly the same as in the preceding year (2,527,000 acres); but the estimated yield (2,263,000 tons) was 12 per cent below the final figure (2,584,000 tons) of the preceding year, owing mainly to the prolonged drought in the United Provinces, which comprise over half the total sugarcane area of British India.

Tea.

The provinces where tea is grown are Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma, and the State of Travancore. The total area under tea in 1913 was reported to be 609,700 acres, which is nearly 3 per cent greater than that in the preceding year. Excessive rain and floods in Cachar and Lakhimpur and in parts of Sylhet in the early parts of the season caused considerable damage to the bushes and a consequent loss of outturn. The cold weather set in rather suddenly in all districts. Otherwise climatic conditions were fairly favourable in Assam and Bengal. In parts of Southern India the crop was affected by drought. The total production of manufactured tea (both black and green) was reported to be 307,250,000 lbs in 1913 as against 297,878,000 lbs in the preceding year.

Cotton.

The total reported area under cotton was 24,595,000 acres in 1913-14 as against 22,028,000 acres in 1912-13. All the important provinces contributed to the increase. The season was, on the whole, favourable except in parts of the Bombay Presidency, the Central Provinces, and the United Provinces. The crop in these tracts suffered more or less through drought. The total estimated outturn was 5,201,000 bales of 400 lbs each, which is 591,000 bales or 13 per cent more than the final figure of 1912-13. The figures for 1913-14 for both area and outturn are the highest ever returned. The marginal statement compares the estimates of yield for the last three years with the sum of net exports and internal consumption (in thousands of bales).

	Thousand bales.		
	1911-12	1912-13	1913-14
Net exports . .	1,773	2,307	3,538
Mill consumption . .	1,781	1,806	1,809
Consumption outside mills (conjectural) . .	450	450	450
Total .	4,004	4,563	5,797
Estimate of yield . .	3,288	4,610	5,201
Excess (+) or deficit (—)	—716	+47	—596

There are, it may be remembered, two varieties of cotton grown in India, *viz.*, the early and the late. Early cotton grows principally in northern and central India, and late cotton largely in southern and western India. Taking both the varieties together, the sowing season extends from March to August

* The Central Provinces and Berar have started the preparation of sugarcane forecasts from 1914-15.

and the harvesting season from October to April. In parts of southern India sowings continue till October and harvesting till July. The estimates given above relate to all the cotton-growing provinces and states in India.

Jute. Jute is sown from March to May and harvested in August and September. The provinces where it is grown are Bengal, Bihar and Orissa, and Assam. It is also grown to a small extent in the Nepal State, but no reliable information is available for that State. The total reported area under jute in 1913 (2,911,000 acres) fell short of that of the preceding year by 2 per cent, but the estimated yield (8,894,000 bales of 400 lbs each) fell short by 10 per cent. The decrease in outturn was due mainly to damage done by excessive rain and floods in Bengal, which contain 89 per cent of the total jute area. In 1914 the estimated area and yield were 3,359,000 acres and 10,444,000 bales respectively.

Linseed. Linseed is a *rabi* (spring) crop, being sown from August to October and harvested from January to April. The provinces to which the estimates for linseed relate are the United Provinces, the Central Provinces and Berar, Bengal, Bihar and Orissa, the Punjab, and Bombay. These tracts comprise 99 per cent of the total area under linseed in British India. Reports are also made by the States of Hyderabad and Baroda and by the states in the Bombay Presidency. No report is received from any other Native State. The total area under linseed reported by all these tracts in 1913-14 was 2,997,000 acres, which was 27 per cent short of the final figure of the preceding year. The only province, where the season was distinctly favourable for the linseed crop, was Bihar and Orissa. In the important linseed-growing tracts of the Central and the United Provinces, the crop was seriously affected by drought. Insects, cloudy weather, and hailstorms also injured the crop in parts of the Central Provinces. In other provinces also, the season was not, on the whole, favourable owing chiefly to deficient rainfall. As a consequence the total estimated yield (382,000 tons) fell short of that of the preceding year by 30 per cent.

Rape and mustard. Rape and mustard are also *rabi* (spring) oilseeds, being sown from August to October and harvested from January to April. The provinces from which reports are received are the Punjab, Bengal, Bihar and Orissa, Assam, the United Provinces, the North-West Frontier Province, Bombay, and Sind. These tracts contain 99·4 per cent of the total area under rape and mustard in British India. Reports are also received from the States of Hyderabad and Baroda and from the states in the Bombay Presidency. No report is received from any other Native State. The total area under rape and mustard reported by all the reporting tracts in 1913-14 was 5,941,000 acres, which is 1 per cent short of the figure for the preceding year. Weather conditions at sowing time were, on the whole, favourable, except in parts of the United Provinces and the Punjab, where moisture in the soil was insufficent owing to scanty autumn rains. The crop was seriously affected by drought in the southern and western districts of the United Provinces, where these oilseeds are extensively cultivated. Elsewhere conditions were, on the whole, from fair to good. The total estimated yield (1,043,000 tons) was nearly 16 per cent below the final figure of the preceding year.

Sesamum. Sesamum is mainly a *kharif* (autumn) crop, being sown from May to July and harvested from October to December; in parts of southern India sowing continues till September or October and harvesting till March or April. A *rabi* or summer variety is also grown in certain tracts; this is sown in January and February and harvested in May to July. The provinces* to which the estimates for sesamum relate are the Central Provinces and Berar, Bombay, Sind, Madras, the United Provinces, Bengal, Bihar and Orissa, Punjab, and Ajmer-Merwara. These tracts contain about 80 per cent of the total area under sesamum in British India. Reports are also received from the Native States of Hyderabad and Baroda and those in the Bombay Presidency. No report is received from any other Native State or from Burma. The total reported area under sesamum in 1913-14 was 5,119,000 acres against 4,989,000 acres in the preceding year. The crop suffered through deficient rainfall in parts of western and northern India, and through excessive rain and floods in parts of eastern India. Elsewhere weather conditions were, on the whole, favourable.

* Assam prepared forecasts of sesamum for a few years (1910-11 to 1913-14), but has discontinued them with effect from 1914-15.

The total estimated yield was 408,000 tons as against 474,000 tons in 1912-13—a decrease of 14 per cent. An addition of approximately 25 per cent should be made to this figure in respect ofother British provinces (containing an aggregate area of about 1,046,000 acres under sesamum) for which no estimate is made.

Groundnut.

The groundnut crop is sown from May to August and harvested from November to January. The provinces to which the estimates for this crop relate are Madras, Bombay (including Native States), and Burma, these being the provinces where groundnut is grown to a considerable extent. The total area under groundnut in these three provinces in 1913-14 was reported as 1,663,000 acres, which is 22 per cent larger than the figure of the preceding year, the estimated yield (732,000 tons) being only 9 per cent in excess of last year. In Madras, where 70 per cent of the total reported area was cultivated, the crop was damaged in places by floods in November and December.

Indigo.

The indigo crop is sown from February to July and harvested from August to November. The provinces to which the estimates for indigo relate are Bihar and Orissa, Bengal, the United Provinces, the Punjab, Bombay, Sind, and Madras. These tracts contain 99·9 per cent of the total area under indigo in British India. No report is received from any Native State, except the state of Khairpur in Sind. The cultivation of indigo continues to decline, the total reported area (173,000 acres) in 1913-14 being 21 per cent short of that of the preceding year. The crop suffered, on the whole, through excessive rainfall in Bihar and Orissa and in the eastern districts of the United Provinces, and through drought in the Punjab and in the western districts of the United Provinces. Elsewhere conditions were reported to be fair to good. The total estimated yield of dye was 27,000 cwts, which was less than the figure of the preceding year by 31 per cent.

G. FINDLAY SHIRRAS,
Director of Statistics.

DEPARTMENT OF STATISTICS, INDIA,
Calcutta, January 12, 1915.

TABLES

NO. 1.—ABSTRACT TABLE—AREA AND YIELD OF EACH CROP.

Area (acres)

Crops	1909-10	1910-11	1911-12	1912-13	1913-14
Rice	58,119,000	58,029,000	64,726,000	71,623,000	70,583,000
Wheat	28,106,000	30,565,000	31,141,000	30,043,000	27,697,000
Sugarcane	2,112,800	2,114,600	2,380,300	2,526,700	2,519,800
Tea	555,300	563,600	574,600	591,800	609,700
Cotton	20,545,000	22,596,000	21,615,000	22,028,000	24,595,000
Jute	2,876,600	2,937,800	3,106,400	2,970,500	2,911,000
Linseed	3,188,100	3,742,400	5,038,000	4,124,900	2,997,100
Rape and Mustard	6,630,600	6,315,900	6,990,300	5,955,800	5,941,000
Sesamum	5,415,000	5,206,000	4,808,100	4,989,500	5,119,100
Groundnut	1,048,700	951,900	1,214,100	1,366,400	1,663,400
Indigo	289,100	276,400	266,900	220,100	172,600

Yield

Crops	1909-10	1910-11	1911-12	1912-13	1913-14
Rice . . . tons	27,857,000	27,897,000	30,074,000	28,485,000	28,167,000
Wheat . . . „	9,633,400	10,061,500	9,924,500	9,853,000	8,427,000
Sugarcane . . . „	2,127,100	2,217,800	2,451,100	2,583,600	2,262,600
Tea . . . lbs.	258,136,400	263,269,400	268,602,700	297,878,100	307,249,600
Cotton . . . bales	4,718,000	3,853,000	3,288,000	4,610,000	5,201,000
Jute . . . „	7,206,600	7,932,000	8,234,700	9,842,800	8,893,900
Linseed . . tons	427,800	561,200	639,800	538,600	382,200
Rape and Mustard . . „	1,270,200	1,233,200	1,308,500	1,234,800	1,042,900
Sesamum . . . „	560,800	511,800	397,600	474,000	407,900
Groundnut . . . „	459,300	503,200	605,700	669,900	731,900
Indigo . . . cwts	39,300	46,000	47,700	39,100	26,800

Note.—Figures for 1913-14 are subject to revision. The estimates for 1914-15, so far as available, are :—

Rice . . 75,068,000 acres
Wheat . . 28,694,000 „
Sugarcane . 2,450,000 „
Cotton . . 24,030,000 acres and 4,950,000 bales
Jute . . 3,353,700 „ „ 10,443,900 „
Linseed . . 2,458,800 „
Rape and Mustard 3,786,200 „
Sesamum . 5,385,000 acres and 537,800 tons
Groundnut . 1,726,000 „
Indigo . . 131,700 „ and 24,900 cwts

No. 2.—AREA AND YIELD OF RICE IN EACH PROVINCE.

Area (acres)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bengal (*a*) . .	38,355,000	41,111,000	40,239,000	40,210,000	38,158,000	42,977,000	42,793,000	20,437,000	20,639,000	19,708,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	17,363,000	16,196,000	16,275,000
Madras (*b*) . .	6,323,000	6,604,000	6,944,000	7,215,000	7,361,000	7,675,000	7,787,000	10,288,000	10,944,000	11,032,000
Burma (*e*) . .	6,909,000	6,713,000	6,974,000	7,252,000	7,569,000	7,467,000	7,449,000	7,373,000	9,966,000	10,133,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	5,220,000	6,811,000	6,062,000
Assam . . .	(*d*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	4,045,000	4,272,000	3,831,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,624,000	2,389,000
Sind (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,088,000	1,071,000
Coorg . . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	83,000	82,000
TOTAL .	51,587,000	54,428,000	54,157,000	54,677,000	53,088,000	58,119,000	58,029,000	64,726,000	71,623,000	70,583,000

Yield (tons)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bengal (*a*) . .	17,361,000	16,468,000	15,769,000	13,328,000	14,131,000	21,780,000	21,848,000	8,635,000	8,356,000	7,371,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	8,906,000	5,969,000	8,147,000
Madras (*b*) . .	2,025,000	2,292,000	2,522,000	2,475,000	2,185,000	2,868,000	3,174,000	5,833,000	4,435,000	4,216,000
Burma (*e*) . .	3,037,000	2,897,000	3,096,000	3,157,000	3,233,000	3,209,000	2,875,000	3,325,000	4,501,000	4,241,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,779,000	1,998,000	1,264,000
Assam . . .	(*d*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	1,596,000	1,948,000	1,339,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	820,000	1,212,000
Sind (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	405,000	342,000
Coorg . . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	53,000	35,000
TOTAL .	22,423,000	21,657,000	21,387,000	18,960,000	19,549,000	27,857,000	27,897,000	30,074,000	28,485,000	28,167,000

(*a*) Includes Bihar and Orissa down to 1910-11 and Assam from 1905-06 to 1910-11.
(*b*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included.
(*c*) Included under Bengal.
(*d*) Not available.
(*e*) The figures down to 1911-12 relate only to the chief rice-growing districts in Lower Burma.
(*f*) The estimates for Bombay and Sind relate to chief rice-growing districts.

Note.—Figures for 1913-14 are subject to revision.

No. 3.—AREA AND YIELD OF WHEAT IN EACH PROVINCE.

Area (acres)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Punjab (*a*) . .	7,712,000	8,572,000	9,100,000	8,272,000	9,002,000	9,142,000	9,981,000	11,018,000	9,316,000	9,177,000
United Provinces .	7,706,000	6,479,000	7,044,000	4,406,000	5,695,000	6,491,000	7,342,000	7,578,000	7,382,000	6,373,000
Central Provinces and Berar (*b*) .	3,497,000	3,444,000	3,714,000	2,801,000	2,860,000	3,176,000	3,585,000	3,739,000	3,743,000	3,383,000
Central India States	2,227,000	1,852,000	2,448,000	1,694,000	2,046,000	2,313,000	2,460,000	2,563,000	3,216,000	2,684,000
Bombay (including Native States) (*c*).	2,261,000	1,347,000	1,663,000	1,678,000	1,746,000	1,820,000	1,855,000	1,284,000	1,735,000	1,789,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,312,000	1,285,000	1,270,000	1,342,000
North-West Frontier Province (*e*) .	882,000	1,025,000	1,146,000	978,000	1,019,000	1,008,000	1,033,000	1,203,000	879,000	992,000
Hyderabad State .	1,127,000	934,000	1,040,000	933,000	1,098,000	1,097,000	1,104,000	970,000	851,000	702 000
Rajputana States .	1,024,000	666,000	842,000	604,000	888,000	1,085,000	1,187,000	963,000	1,014,000	622,000
Sind (including Native States) .	523,000	628,000	672,000	447,000	548,000	471,000	560,000	391,000	487,000	481,000
Bengal (*f*) . .	1,506,000	1,408,000	1,539,000	1,096,000	1,332,000	1,500,000	143,000	143,000	146,000	144,000
Ajmer-Merwara .	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	5,000
Mysore State .	5,000	2,000	4,000	2,000	2,000	3,000	3,000	4,000	4,000	3,000
TOTAL .	28,470,000	26,357,000	29,212,000	22,911,000	26,236,000	28,106,000	30,565,000	31,141,000	30,043,000	27,697,000

Yield (tons)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Punjab (*a*) . .	2,855,000	3,510,000	3,267,000	2,489,000	3,062,000	3,434,000	3,709,000	3,809,000	2,989,000	3,428,000
United Provinces .	1,897,000	2,429,000	2,165,000	1,675,000	2,124,000	2,975,000	2,919,000	3,032,000	2,938,000	2,205,000
Central Provinces and Berar (*b*) .	832,000	834,000	904,000	507,000	721,000	992,000	973,000	904,000	1,062,000	683,000
Central India States	473,000	420,000	615,000	271,000	397,000	514,000	582,000	686,000	1,049,000	492,000
Bombay (including Native States) (*c*)	357,000	275,000	338,000	336,000	383,000	451,000	506,000	265,000	543,000	444,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	570,000	557,000	529,000	583,000
North-West Frontier Province (*e*) .	268,000	280,000	305,000	213,000	213,000	235,000	266,000	280,000	195,000	259,000
Hyderabad State .	90,000	42,000	109,000	67,000	72,000	68,000	97,000	43,000	48,000	43,000
Rajputana States .	189,000	137,000	182,000	133,000	199,000	266,000	265,000	204,000	244,000	122,000
Sind (including Native States) .	126,000	196,000	186,000	113,000	134,000	132,000	136,000	97,000	204,000	114,000
Bengal (*f*) . .	495,000	447,000	421,000	321,000	334,000	566,000	38,000	47,000	51,000	51,000
Ajmer-Merwara .	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	2,000
Mysore State .	400	100	700	600	200	400	500	500	1,000	1,000
TOTAL .	7,582,400	8,570,100	8,492,700	6,125,600	7,639,200	9,633,400	10,061,500	9,924,500	9,853,000	8,427,000

(*a*) Includes Native States from 1907-08.
(*b*) Includes the Native States of Khairagarh and Nandgaon from 1907-08.
(*c*) Includes the Native State of Baroda.
(*d*) Included under Bengal.
(*e*) Includes the Tochi Agency and from 1906-07 the Kurram Agency.
(*f*) Includes Bihar and Orissa up to 1909-10.
(*g*) Not available

NOTE.—Figures for 1913-14 are subject to revision

No. 4.—AREA AND YIELD OF SUGARCANE IN EACH PROVINCE

Area (acres)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces	1,212,600	1,228,900	1,386,700	1,481,700	1,120,100	1,037,600	1,047,100	1,340,600	1,425,400	1,379,900
Punjab (*a*)	325,500	172,700	277,700	391,800	365,700	403,800	387,900	284,800	367,000	411,200
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	263,000	266,100	262,900
Bengal (*c*)	633,000	623,100	606,700	607,200	553,000	507,800	515,600	223,300	221,800	216,500
Bombay (including Native States)(*e*)	(*d*)	(*d*)	(*d*)	74,300	92,800	89,200	83,400	94,700	79,400	93,400
Madras (*f*)	47,800	60,700	52,100	49,000	43,700	43,800	47,900	107,700	98,800	77,700
Assam	(*d*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	34,700	38,200	46,500
North-West Frontier Province (*g*)	25,900	25,600	28,600	35,200	27,500	30,600	32,700	31,500	30,000	31,700
TOTAL	2,244,800	2,111,000	2,351,800	2,639,200	2,202,800	2,112,800	2,114,600	2,380,300	2,526,700	2,519,800

Yield (tons) of raw sugar (gûr)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces	1,183,400	884,000	1,264,600	916,700	844,200	955,200	1,042,900	1,259,300	1,301,500	974,500
Punjab (*a*)	238,300	89,000	212,800	238,700	265,600	328,700	262,600	161,200	274,300	298,600
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	303,800	292,700	289,200
Bengal (*c*)	634,700	615,200	594,700	583,100	430,800	495,800	563,500	256,300	263,200	242,800
Bombay (including Native States)(*e*)	(*d*)	(*d*)	(*d*)	184,200	221,200	232,300	226,000	214,600	180,700	233,300
Madras (*f*)	90,000	114,500	100,400	92,000	81,000	82,000	87,100	196,000	204,500	150,000
Assam	(*d*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	28,000	33,100	39,100
North-West Frontier Province (*g*)	22,600	22,800	32,800	32,200	30,100	33,100	35,700	31,900	33,600	35,100
TOTAL	2,169,000	1,725,500	2,205,300	2,046,900	1,872,900	2,127,100	2,217,800	2,451,100	2,583,600	2,262,600

(*a*) Figures for years prior to 1913-14 exclude unimportant districts
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa down to 1910-11
(*d*) Not available
(*e*) Includes Sind from 1912-13
(*f*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and *whole inam* villages have also been included
(*g*) Up to 1912-13 the figures related to three selected districts. From 1913-14 all the districts including the Tochi Agency have been reported on

NOTE.—Figures for 1913-14 are subject to revision

No. 5.—AREA AND YIELD OF TEA IN EACH PROVINCE

Area (acres)

Province.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Assam	337,800	339,200	339,200	342,300	345,600	348,000	350,200	354,300	361,700	367,500
Bengal	134,700	136,200	136,500	139,500	141,600	143,200	145,900	146,800	150,500	156,000
Travancore	24,700	25,200	27,500	26,000	27,100	29,200	30,400	32,000	34,100	37,400
Madras	8,600	8,600	10,100	11,000	14,600	15,700	18,100	20,600	24,400	26,300
United Provinces	8,000	7,900	8,000	8,000	8,100	8,100	7,900	7,600	7,800	8,000
Punjab	9,300	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,300	9,300
Bihar and Orissa (*a*)	...	...	...	...	...	...	...	2,200	2,300	2,200
Burma	1,400	1,500	1,500	1,700	1,700	1,700	1,700	1,700	1,700	3,000
TOTAL	524,500	528,000	532,200	537,900	548,100	555,300	563,600	574,600	591,800	609,700

Yield (lbs)

Province.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Assam	152,197,400	151,904,800	162,468,000	164,194,300	166,456,900	174,851,200	175,095,100	179,053,000	198,798,300	199,722,000
Bengal	53,885,800	53,570,800	60,688,200	60,216,600	59,971,600	60,920,700	64,674,200	64,653,900	70,524,200	80,108,700
Travancore	9,073,900	10,147,600	11,186,300	12,749,400	12,593,800	13,353,700	14,323,100	14,714,500	16,059,600	15,155,600
Madras	1,652,600	1,762,700	3,094,500	3,470,600	4,436,400	5,325,700	5,645,200	5,795,400	7,555,800	7,089,000
United Provinces	2,573,100	2,474,700	2,290,200	2,294,600	2,009,900	2,206,600	2,045,300	2,534,700	2,656,800	2,579,100
Punjab	1,916,800	1,432,300	1,237,700	1,237,500	1,437,500	1,413,700	1,418,900	1,489,200	1,931,000	2,129,800
Bihar and Orissa (*a*)	...	...	...	...	...	...	...	285,500	269,100	311,600
Burma	67,400	107,300	112,600	129,600	118,400	64,800	67,600	76,500	83,300	153,800
TOTAL	221,367,000	221,400,200	241,077,500	244,292,600	247,024,500	258,136,400	263,269,400	268,602,700	297,878,100	307,249,600

(*a*) Figures for years down to 1910 are included under Bengal

No. 6.—AREA AND YIELD OF COTTON IN EACH PROVINCE

Area (acres)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bombay (including Native States) (*a*)	5,955,000	6,665,000	7,383,000	7,101,000	6,241,000	6,469,000	7,334,000	5,786,000	6,826,000	7,100,000
Central Provinces and Berar	4,553,000	4,849,000	4,678,000	4,432,000	4,176,000	4,167,000	4,487,000	4 648,000	4,493,000	4,715,000
Hyderabad State	2,731,000	2,537,000	3,480,000	3,100,000	2,902,000	3.401,000	3.562,000	3,234,000	2,888,000	3,653,000
Madras (*b*)	1,755,000	1,597,000	1,703,000	1,855,000	1,576,000	1,569,000	1,873,000	2,878,000	2,414,000	2,593,000
Punjab (including Native States)	1,698,000	2,020,000	1,413,000	1,474,000	1,562,000	1,436,000	1,385,000	1,582,000	1,575,000	2,053,000
United Provinces (*c*)	1,201,000	1,372,000	1,489,000	1,461,000	1,392,000	1,241,000	1,347,000	921,000	1,158,000	1,586,000
Central India States	846,000	979,000	1,132,000	993,000	978,000	1,068,000	1,349.000	1,400,000	1,314,000	1,426,000
Rajputana States	469.000	291,000	428,000	438,000	389,000	464,000	465,000	263,000	393,000	470,000
Sind (including Native States)	221,000	283,000	250,000	259,000	259,000	214,000	279,000	345,000	296,000	332,000
Burma	189,000	183,000	187,000	195,000	204,000	198,000	167,000	186,000	233,000	288,000
Mysore	71,000	76,000	89,000	84,000	65,000	81,000	101,000	101,000	154,000	93,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	88,000	92,000	86,000
North-West Frontier Province (*e*)	49,000	59,000	61,000	48,000	54,000	32,000	33,000	56,000	56,000	59,000
Bengal (*f*)	128,000	132,000	151,000	149,000	161,000	166,000	169,000	63,000	51,000	51,000
Ajmer-Merwara	52,000	29,000	40,000	41.000	40,000	39,000	45,000	27,000	50,000	57,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	36,000	35,000	33,000
TOTAL	19,918,000	21,072,000	22,484,000	21,630,000	19,999,000	20,545,000	22,596,000	21,615,000	22,028,000	24,595,000

Yield (bales of 400 lbs. each)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bombay (including Native States) (*a*)	796,000	1,198,000	1,762,000	1,039,000	1,282,000	1,661,000	1,450,000	695,000	1,520,000	1,572,000
Central Provinces and Berar	1,229,000	818,000	881,000	595,000	766,000	1,070,000	629,000	913,000	910,000	961,000
Hyderabad State	330,000	303,000	449,000	293,000	307,000	461,000	293,000	300,000	300,000	400,000
Madras (*b*)	132,000	145,000	157,000	198,000	162,000	180,000	235,000	335,000	471,000	513,000
Punjab (including Native States)	408,000	192,000	357,000	356,000	324,000	396,000	306,000	241,000	373,000	594,000
United Provinces (*c*)	368,000	394,000	639,000	268,000	426,000	384,000	348,000	251,000	428,000	484,000
Central India States	136,000	120,000	222,000	55,000	144,000	221,000	237,000	228,000	206.000	273,000
Rajputana States	186,000	61,000	201,000	91,000	80,000	148,000	143,000	73,000	125,000	132,000
Sind (including Native States)	97,000	84,000	155,000	135,000	101,000	104,000	97,000	124,000	123,000	133,000
Burma	39,000	35,000	36,000	29,000	41,000	32,000	28,000	32,000	46,000	50,000
Mysore	5,000	5,000	10,000	6,000	3,000	6,000	10,000	17,000	19,000	16,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	19,000	19,000	19,000
North West Frontier Province (*e*)	10,000	13,000	13,000	9,000	12,000	7,000	8,000	12,000	13,000	14,000
Bengal (*f*)	37,000	33,000	33,000	38,000	35,000	35,000	49,000	25,000	21,000	13,000
Ajmer-Merwara	18,000	5,000	19,000	10,000	9,000	13,000	20,000	12,000	26,000	15,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	11,000	10,000	12,000
TOTAL	3,791,000	3,416,000	4,934,000	3,122,000	3,692,000	4,718,000	3,853,000	3,288,000	4,610,000	5,201,000
Net Exports and Consumption (*g*)	3,943,602	4,168,451	4,854,579	3,782,401	4,200,150	4,928,000	4,303,000	4,004,000	4,563,000	5,797,000

(*a*) Includes the State of Baroda

(*b*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and *whole inam* villages and Native States have also been included

(*c*) Includes the Native State of Rampur

(*d*) Included under Bengal

(*e*) Includes the Tochi and Kurram Agencies from 1913-14

(*f*) Includes Bihar and Orissa and Assam down to 1910-11 and the Hill Tippera State from 1906-07

(*g*) The exports as well as the mill consumption are for the year ending the 30th September. No reliable information exists as to the annual consumption outside the mills, but in 1911 it was settled in consultation with the Bombay Cotton Trade Association to adopt theconventional estimate of 450,000 bales. This figure has been included in the figure for each year shown against this item

Note.—Figures for 1913-14 are subject to revision

No. 7.—AREA AND YIELD OF JUTE IN EACH PROVINCE

Area (acres)

Province	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Bengal (*a*)	3,090,700	3,434,000	3,846,500	2,766,300	2,773,100	2,841,600	2,737,600	2,536,900	2,456,600	2,872,600
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	258,100	298,300	318,400	330,100
Assam	37,600	48,900	95,800	68,400	83,500	82,200	90,700	95,700	97,000	111,600
Cooch Bihar State	...	...	32,000	22,000	20,000	14,000	20,000	39,600	39,000	44,400
TOTAL	3,128,300	3,482,900	3,974,300	2,856,700	2,876,600	2,937,800	3,106,400	2,970,500	2,911,000	3,358,700

Yield (bales of 400 lbs each)

Province	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Bengal (*a*)	8,029,000	9,020,500	9,512,100	6,132,700	6,992,500	7,735,300	7,247,600	8,698,300	7,939,900	9,308,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	705,500	792,900	602,900	693,200
Assam	59,100	106,900	224,100	138,500	180,500	177,800	239,600	226,800	228,300	307,500
Cooch Bihar State	52,800	79,000	81,600	39,600	33,600	18,900	42,000	124,800	122,800	135,200
TOTAL (*c*)	8,140,900	9,206,400	9,817,800	6,310,800	7,206,600	7,932,000	8,234,700	9,842,800	8,893,900	10,443,900

(*a*) Includes Bihar and Orissa down to 1910
(*b*) Included under Bengal
(*c*) Excluding the figures for Nepal, which are stated below so far as information is available

	Bales		Bales		
1905	91,000	1908	88,000	1911	No information.
1906	61,000	1909	81,000	1912	
1907	83,000	1910	79,000	1913	88,000

Note.—Figures for 1914 are subject to revision

No. 8.—AREA AND YIELD OF LINSEED IN EACH PROVINCE.

Area (acres)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Central Provinces and Berar	959,700	912,100	1,158,200	547,600	954,700	926,200	1,080,400	1,858,800	1,509,000	955,200
United Provinces (*a*)	634,500	210,900	315,000	57,500	194,700	308,400	472,800	848,800	493,500	237,500
	647,000	*567,000*	*633,000*	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	510,300	567,800	528,000	652,800
Hyderabad State	775,800	604,500	664,300	484,800	555,400	548,900	631,300	603,500	512,400	412,600
Bengal (*c*)	829,400	829,500	805,600	589,400	634,600	673,400	196,900	206,800	199,800	195,100
Bombay including Native States, (*d*)	548,000	154,800	167,100	151,100	158,600	134,200	194,700	205,300	171,900	139,100
Punjab	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	43,300	37,800
Total (*a*)	3,747,400	2,711,800	3,110,200	1,830,400	2,498,000	2,591,100	3,036,400	4,291,000	3,457,900	2,630,100
	647,000	*567,000*	*633,000*	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*

Yield (tons)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Central Provinces and Berar	80,500	77,300	106,200	23,500	90,900	90,300	124,500	139,000	141,800	70,100
United Provinces (*a*)	51,800	32,800	156,000	6,500	30,400	62,000	102,900	159,700	95,500	38,200
	49,000	*88,000*	*113,000*	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	102,400	120,100	101,200	149,600
Hyderabad State	33,500	24,700	28,600	13,600	17,200	18,400	30,400	26,800	17,300	16,500
Bengal (*c*)	114,100	127,800	114,600	85,900	72,500	124,200	30,700	39,200	37,400	34,400
Bombay (including Native States (*d*)	18,500	2,600	6,800	4,000	8,700	12,900	28,300	15,000	17,400	11,200
Punjab	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	3,200
Total (*a*)	298,400	265,200	312,200	133,500	219,700	307,800	419,200	499,800	410,600	323,200
	49,000	*88,000*	*113,000*	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa down to 1909-10
(*d*) Includes the state of Baroda also
(*e*) Not available

Note—Figures for 1913-14 are subject to revision

No. 9.—AREA AND YIELD OF RAPE AND MUSTARD IN EACH PROVINCE

Area (acres)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces (*a*)	140,100	154,700	153,400	96,800	136,800	176,900	146,200	176,200	145,000	144,700
	2,509,000	*2,026,000*	*2,210,000*	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*
Punjab (*b*) . .	1,210,800	1,614,200	1,402,400	842,800	1,158,900	1,329,900	1,089,000	1,414,100	887,800	976,400
Bengal (*c*) . .	1,977,500	1,861,700	2,026,500	1,889,100	1,854,900	2,278,300	1,370,700	1,317,500	1,325,400	1,321,700
Bihar and Orissa .	(*d*)	(*d*)	(*d*) .	(*d*)	(*d*)	(*d*)	765,700	780,100	723,300	753,500
Assam . . .	157,700	164,400	222,000	261,000	284,300	320,100	318,100	258,100	295,000	301,600
North-West Frontier Province (*e*) .	55,700	85,500	218,800	121,000	226,900	91,700	85,100	94,200	75,700	141,300
Bombay (including Native States) .	25,100	43,800	61,400	46,900	80,800	86,900	84 600	17,600	75,700	80,400
Sind (including Native States) .	60,100	64,200	87,900	63,100	120,400	69,700	76,200	54,000	43,800	61,800
Hyderabad State ..	13,000	14,300	10,700	9,500	12,500	8,100	9,300	6,500	11,100	5,600
TOTAL (*a*) .	3,640,000	4,002,800	4,183,100	3,330,200	3,875,500	4,361,600	3,944,900	4,118,300	3,582,800	3,787,000
	2,509,000	*2,026,000*	*2,210,000*	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*

Yield (tons)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces (*a*)	18,800	30,000	30,000	11,300	26,900	36,000	34,400	37,200	33,900	22,100
	336,000	*398,000*	*424,000*	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*
Punjab (*b*) . .	119,300	183,000	172,300	110,000	183,900	226,900	155,100	196,600	156,600	162,600
Bengal (*c*) . .	360,300	287,300	337,000	275,600	231,900	440,100	238,600	243,900	265,800	268,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	151,900	154,700	137,100	157,800
Assam . . .	28,000	30,200	43,600	42,700	46,400	60,500	56,000	47,600	58,400	61,800
North-West Frontier Province (*e*) .	8,300	12,200	19,400	12,300	28,600	7,900	9,500	12,100	7,200	15,900
Bombay (including Native States) .	3,000	9,300	14,300	12,500	23,200	22,600	15,400	2,600	20,000	20,800
Sind (including Native States) .	2,500	11,500	12,400	6,400	23,400	10,100	11,100	4,700	4,600	6,800
Hyderabad State .	200	100	100	200	200	100	200	100	200	100
TOTAL (*a*) .	540,400	563,600	629,100	471,000	564,500	804,200	672,200	699,500	683,800	715,900
	336,000	*398,000*	*424,000*	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) Figures for years prior to 1913-14 excluded the districts of Simla, Jalandhar, Kangra, and Gurdaspur

(*c*) Includes Bihar and Orissa down to 1909-10

(*d*) Included under Bengal

(*e*) Figures for years prior to 1906-07 excluded the Kohat District

Note.—Figures for 1913-14 are subject to revision

No. 10.—AREA AND YIELD OF SESAMUM (TIL OR JINJILI) IN EACH PROVINCE

Area (*acres*)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces (*a*)	304,100	278,200	309,200	329,800	322,000	481,300	438,900	375,000	317,200	378,400
	600,000	*700,000*	*775,000*	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*
Bombay (including Native States) (*b*)	793,900	908,100	1,049,500	992,700	979,500	1,037,400	994,800	548,900	793,300	867,900
Central Provinces and Berar	891,100	792,900	807,900	977,600	790,000	942,700	895,300	886,700	778,000	866,600
Madras (*c*)	674,200	723,300	556,900	647,000	685,900	718,900	573,200	587,200	823,700	835,800
Hyderabad State	780,000	465,600	493,700	510,600	511,900	597,300	677,700	663,900	649,100	612,000
Bengal (*d*)	493,700	515,000	496,300	419,400	453,400	494,800	489,100	271,800	264,800	239,600
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	214,600	223,700	227,200
Punjab (*e*)	158,000	146,300	95,500	84,100	164,700	175,600	143,700	92,100	156,800	143,600
Sind (including Native States)	83,700	84,400	55,900	55,600	80,500	67,000	88,300	58,200	72,300	84,700
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	11,900
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	9,700	10,600	(*h*) 1,400
TOTAL (*a*)	4,178,700	3,913,800	3,864,900	4,016,800	3,987,900	4,515,000	4,306,000	4,008,100	4,089,500	4,269,100
	600,000	*700,000*	*775,000*	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*

Yield (*tons*)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
United Provinces (*a*)	13,900	17,500	36,200	10,900	34,000	48,700	45,400	29,000	34,000	18,000
	35,000	*45,000*	*90,000*	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*
Bombay (including Native States) (*b*)	52,700	105,100	186,000	61,400	99,500	132,400	109,400	31,700	96,300	90,800
Central Provinces and Berar	69,000	66,900	70,400	55,400	59,900	91,900	76,400	72,300	60,900	70,400
Madras (*c*)	55,100	55,000	45,800	53,100	57,200	59,700	49,300	78,200	65,500	74,900
Hyderabad State	29,400	18,400	27,300	20,600	18,700	24,500	34,400	25,400	32,500	25,100
Bengal (*d*)	59,000	61,700	72,200	46,800	50,000	88,800	79,400	41,500	35,100	28,800
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	33,500	25,000	32,400
Punjab (*e*)	16,000	13,900	8,800	4,700	23,700	18,500	14,900	9,900	16,000	15,700
Sind (including Native States)	5,300	6,300	4,300	4,200	12,300	6,500	12,600	4,800	6,900	9,500
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	100
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	1,300	1,800	(*h*) 200
TOTAL (*a*)	300,400	344,800	451,000	255,700	364,300	470,800	421,800	327,600	374,000	365,900
	35,000	*45,000*	*90,000*	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crops of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Includes the State of Baroda
(*c*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included
(*d*) Includes Bihar and Orissa down to 1910-11 and Assam for 1910-11
(*e*) Figures for years prior to 1913-14 exclude unimportant districts
(*f*) Included under Bengal
(*g*) Not available
(*h*) Early crop only

Note—Figures for 1913-14 are subject to revision

No. 11.—AREA AND YIELD OF GROUNDNUT IN EACH PROVINCE

Area (acres)

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Madras (*a*) . .	366,400	393,100	511,000	601,800	718,700	740,100	667,300	806,000	924,200	1,175,200
Bombay (including Native States) .	93,300	92,800	111,000	129,800	133,700	162,300	185,800	269,300	242,700	246,800
Burma (*c*) . .	(*b*)	(*b*)	(*b*)	137,000	258,600	146,300	98 800	138.800	199,500	241,400
TOTAL .	459,700	485,900	622,000	868,600	1,111,000	1,048,700	951,900	1,214,100	1,366,400	1,663,400

Yield (tons) of nuts in shell

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Madras (*a*) . .	151,700	174,500	189,000	202,300	248,500	221,900	254,200	306,000	341,100	411,300
Bombay (including Native States)	63,200	36,700	84,700	82,500	129,500	172,700	207,100	248,300	239,500	232,500
Burma (*c*) . .	(*b*)	(*b*)	(*b*)	67,700	119,700	64,700	41,900	51,4 0	89,300	88,100
TOTAL .	214,900	211,200	273,700	352,500	495,700	459,300	503,200	605,700	669,900	731,900

(*a*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included
(*b*) No information
(*c*) The figures down to 1911-12 relate to the principal groundnut-growing districts. From 1912-13 estimates for other districts also have been included

Note.—The figures for 1913-14 are subject to revision

No. 12.—AREA AND YIELD OF INDIGO IN EACH PROVINCE

Area (acres)

Province.	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bihar and Orissa (*a*)	223,100	161,500	137,800	146,800	135,300	107,400	117,000	109,600	90,100	63,100
Madras . .	126,300	113,900	180,700	141,900	81,800	96,400	82,800	9 ,300	61,500	55,300
Punjab (*b*) . .	53,000	67,500	62,300	57,900	36,200	43,400	45,400	36,600	37,300	22,400
United Provinces(*c*)	74,500	40,700	40,400	47,300	30,600	41,900	31,200	29,400	26,900	24,400
Bombay and Sind(*d*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	3,300	6,200
Bengal . .	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	1,000	1,000	1,200
TOTAL .	476,900	383,600	421,200	393,900	283,900	289,100	276,400	266,900	220,100	172,600

Yield (cwts.) of dye

Province	1904-05	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Bihar and Orissa (*a*)	24,300	15,800	17,300	17,700	17,000	11,400	13,900	17,800	14,700	7,000
Madras . .	16,700	17,300	32,300	20,000	12,400	14,400	20,100	21,200	14,800	11,500
Punjab (*b*) . .	9,900	10,800	11,000	9,000	5,600	8,300	8,500	5,600	6,000	3,500
United Provinces (*c*)	8,000	4,300	5,100	5,600	3,800	5,200	3,500	3,000	3,500	3,000
Bombay and Sind (*d*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	1,700
Bengal . .	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	100	100	100
TOTAL .	58,900	48,200	65,700	52,300	38,800	39,300	46,000	47,70	39,100	26,800

(*a*) Includes Bengal down to 1910-11
(*b*) Figures for years prior to 1913-14 exclude unimportant districts
(*c*) In estimating the yield in the United Provinces it is assumed that one-tenth of the whole area is annually set aside for seed
(*d*) Includes Native States from 1913-14
(*e*) No information
(*f*) Included under Bihar and Orissa

No. 13.—YIELD (lbs) PER ACRE OF CROPS (tabulated in tables 1 to 12) IN EACH PROVINCE

Province	Rice (*a*)		Wheat		Sugarcane (*b*)		Tea		Cotton (*c*)	
	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14
	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb
United Provinces	657	467	892	775	2,045	1,582	341	322	148	122
Madras	908	857	...	...	4,636	4,324	310	270	78	79
Bihar and Orissa	812	1,121	933	973	2,464	2,464	117	142	83	88
Bombay	1,131	1,136	701	556	5,098	5,595	...	...	89	89
Sind	834	715	938	531	...	...	...	...	166	160
Bengal	906	838	782	793	2,658	2,512	469	500	165	102
Punjab	...	...	719	836	1,674	1,627	208	229	95	116
C. P. and Berar	...	...	636	452	...	...	...	...	81	82
Burma	1,012	938	...	...	...	...	49	51	79	69
Assam	1,021	783	...	...	1,941	1,884	550	543	114	145
North-West Frontier Province	...	...	497	585	2,509	2,480	...	...	93	95
Ajmer-Merwara	...	...	...	896	...	...	...	...	208	105
Coorg	1,430	956	...	...	...	...	...	...	...	...
Central India	...	...	731	411	...	...	...	...	63	77
Rajputana	...	...	539	439	...	...	...	...	127	112
Hyderabad	...	...	126	137	..	...	...	...	42	44
Mysore	...	...	560	747	...	...	...	...	49	69
AVERAGE	891	894	735	682	2,290	2,011	503	501	84	85

Province	Jute		Linseed		Sesamum		Rape and Mustard		Groundnut (*d*)		Indigo	
	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14	1912-13	1913-14
	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb
United Provinces	...	...	431	360	247	109	520	340	...	784	15	14
Madras	...	...	...	...	178	201	...	...	827	...	27	23
Bihar and Orissa	757	840	429	513	250	319	425	469	...	2,110	18	12
Bombay	...	...	227	180	272	234	592	580	2,210	...	...	29
Sind	...	...	...	...	214	251	235	246	...	...	...	...
Bengal	1,293	1,296	419	395	297	269	449	454	...	...	11	9
Punjab	...	...	...	190	229	245	395	373	...	...	18	17
C. P. and Berar	...	...	210	164	175	182	...	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	1,003	818	...	...
Assam	941	1,102	...	...	380	320	443	459	...	...	...	...
North-West Frontier Province	...	...	...	...	...	...	213	252	...	...	...	...
Ajmer-Merwara	...	...	...	...	...	19	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	...	...	...	...	...	...	...	...
Rajputana	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad	...	...	76	90	112	92	40	40	...	...	...	...
Mysore	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE	1,222	1,244	292	286	213	178	396	393	1,098	986	20	17

(*a*) Cleaned rice (*b*) Raw sugar or gúr (*c*) Cleaned, *i.e.*, ginned cotton (*d*) Nuts in shell

No. 14.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE.

Area (acres).

Province	Barley			Jawar			Bajra		
	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14
United Provinces	5,163,000	4,591,000	4,376,000	1,633,000	2,169,000	2,063,000	2,880,000	2,618,000	2,188,000
Madras	3,000	3,000	3,000	5,166,000	5,220,000	5,790,000	3,384,000	3,606,000	3,273,000
Bihar and Orissa	1,340,000	1,261,000	1,306,000	95,000	94,000	132,000	67,000	74,000	75,000
Bombay	36,000	28,000	23,000	5,878,000	6,850,000	6,606,000	4,362,000	5,158,000	4,906,000
Sind	19,000	20,000	28,000	389,000	602,000	689,000	415,000	1,141,000	1,110,000
Bengal	95,000	95,000	94,000	2,000	3,000	2,000	6,000	7,000	6,000
Punjab	1,339,000	1,007,000	(a)	554,000	1,212,000	(a)	1,155,000	2,677,000	(a)
C. P. and Berar	(b)23,000	(b)16,000	(a)	4,048,000	3,991,000	4,015,000	117,000	154,000	146,000
Burma	...	...	...	472,000	492,000	531,000	247,000	240,000	225,000
Assam	1,000	1,000	(a)	...	...	...	...	...	...
North-West Frontier Province.	296,000	214,000	291,000	53,000	95,000	103,000	76,000	205,000	193,000
TOTAL	8,315,000	7,236,000	6,121,000	18,290,000	20,728,000	19,931,000	12,709,000	15,880,000	12,122,000

Yield (tons)

Province.	Barley			Jawar			Bajra		
	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14
United Provinces	(a)	(a)	(a)	355,000	598,000	227,000	601,000	611,000	269,000
Madras	(a)	(a)	(a)	(a)	943,000	1,082,000	(a)	551,000	535,000
Bihar and Orissa	579,000	523,000	557,000	(a)	(a)	(a)	(a)	(a)	(a)
Bombay	9,000	10,000	7,000	910,000	1,418,000	1,375,000	340,000	560,000	655,000
Sind	5,000	7,000	10,000	105,000	196,000	202,000	106,000	253,000	181,000
Bengal	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Punjab	382,000	280,000	(a)	68,000	163,000	(a)	97,000	315,000	(a)
C. P. and Berar	(a)	(a)	(a)	986,000	980,000	918,000	(a)	(a)	(a)
Burma	...	...	...	35,000	55,000	68,000	14,000	27,000	33,000
Assam	(a)	(a)	(a)	...	...	...	...	...	...
North-West Frontier Province.	(a)	58,000	140,000	(a)	15,000	16,000	(a)	33,000	37,000
TOTAL (c)	975,000	878,000	714,000	2,459,000	4,368,000	3,808,000	1,158,000	2,350,000	1,710,000

(a)Not available (b) Taken from Agricultural statistics (c) Incomplete

N. B.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports

[Continued on next page

No. 14.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE—*contd.*

Area (acres).

Province.	Maize			Gram		
	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14
United Provinces	1,791,000	2,205,000	2,136,000	6,873,000	5,507,000	3,037,000
Madras	118,000	134,000	124,000	135,000	138,000	166,000
Bihar and Orissa	1,661,000	1,699,000	1,715,000	1,052,000	915,000	1,082,000
Bombay	163,000	162,000	159,000	372,000	475,000	453,000
Sind	2,000	2,000	2,000	76,000	75,000	98,000
Bengal	95,000	97,000	92,000	177,000	184,000	198,000
Punjab	955,000	1,098,000	(*a*)	4,100,000	3,401,000	(*a*)
C. P. and Berar	(*d*) 144,000	(*d*) 150,000	(*a*)	(*c*) 818,000	(*c*) 808,000	(*c*)829,000
Burma	165,000	172,000	170,000	40,000	34,000	42,000
Assam	19,000	19,000	18,000	1,000	1,000	(*a*)
North-West Frontier Province	410,000	419,000	431,000	174,000	169,000	199,000
TOTAL	5,523,000	6,157,000	4,847,000	13,818,000	11,707,000	6,104,000

Yield (tons).

Province.	Maize			Gram		
	1911-12	1912-13	1913-14	1911-12	1912-13	1913-14
United Provinces	703,000	920,000	721,000	2,493,000	1,817,000	551,000
Madras	(*a*)	(*a*)	(*a*)	(*a*)	8,000	(*a*)
Bihar and Orissa	549,000	530,000	542,000	436,000	361,000	448,000
Bombay	27,000	54,000	60,000	39,000	84,000	61,000
Sind	1,000	1,000	1,000	11,000	10,000	9,000
Bengal	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Punjab	366,000	413,000	(*a*)	1,126,000	735,000	(*a*)
C. P. and Berar	(*a*)	(*a*)	(*a*)	244,000	280,000	189,000
Burma	63,000	75,000	68,000	7,000	(*a*)	(*a*)
Assam	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
North-West Frontier Province	184,000	188,000	228,000	(*a*)	29,000	36,000
TOTAL (*b*)	1,893,000	2,181,000	1,620,000	4,356,000	3,324,000	1,294,000

(*a*) Not available
(*b*) Incomplete
(*c*) Excludes Gram sown with other crops
(*d*) Taken from Agricultural statistics

N.B.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports.

APPENDIX I

METHOD OF FRAMING ESTIMATES OF CROPS

There are three factors necessary for framing an estimate of outturn, namely, the area, the standard normal outturn per acre, and the fraction representing the relation of the crop reported on to the normal crop per acre.

As regards area, there exists in the villages of most provinces an agency capable of reporting the acreage of crops with great accuracy, wherever the fields have been mapped and surveyed. The tracts for which statistics are ordinarily not obtainable are yearly diminishing in extent ; but owing to the absence of maps or the non-existence of trained village establishments they still represent a considerable aggregate area. These tracts consist chiefly of permanently settled estates, lands held on privileged tenure, and unsurveyed areas. For these tracts the acreage as well as the outturn cannot be more than a rough estimate. Such estimates of areas, once framed, are liable to become stereotyped and repeated year after year without regard to the influence of exceptional seasons or changes in the economic condition of the tracts. In order to prevent this, provision has been made for the annual revision of these area estimates by careful comparison with the conditions prevailing in those adjoining areas of a similar character for which accurate information is available, and by means of such special enquiries as may be possible.

In dealing with the calculation of the areas under crops, two other matters demand consideration, namely, (1) whether the area returned should be the area sown or that successfully cropped, and (2) whether, when the forecast crop is sown mixed with other crops, it is preferable that the total area covered by the mixed crops should be exhibited, or that such area only should be shown as is estimated to represent the acreage covered by the forecast crop only. As regards (1) the general rule is that the returns should exhibit the areas actually sown whether the crop comes to maturity or not, the principle underlying this rule being that the failure of crop should affect not its area, but its outturn. An exception to this rule is, however, made when fields, owing to the failure of the first sowings, have been devoted to other crops. In this case the area first sown with the forecast crop may be omitted. As to (2) the areas covered by the several crops in a mixed field are estimated in various ways in the different provinces, and the estimates are based on formulæ prescribed by the provincial authorities in individual cases, as it has not been found practicable to prescribe one uniform method of calculation. For purposes of the forecasts the area to be returned must be the area covered by the forecast crop, exclusive of the area covered by the other crops with which it is mixed.

Next with regard to the standard normal outturn. A normal crop may be defined as "that crop which past experience has shown to be the most generally recurring crop in a series of years; the typical crop of the local area ; the crop which the cultivator has a right (as it were) to expect, and with which he is (or should be) content, while if he gets more he has reason to rejoice, and if less he has reason to complain." Briefly, it is stated to be the average yield on average soil in a year of average character. This normal or average yield will not necessarily correspond with the average of a series of years' figures, which is an arithmetical average. The Agricultural Department in each province maintains a statement of the normal or average yield per acre of land of average quality (under the two major heads of irrigated and unirrigated land) for the several crops in each district. In order to test the accuracy of these standards of normal or average yield and to revise them, if necessary, a system of crop cutting experiments is in force in all the provinces. Under this system plots of land of average quality are selected and the crops grown on them are cut and weighed in the presence of responsible officers of the District staff or of the Provincial Agricultural Department. These experiments have to be carried out every year in respect of all the principal crops, and in accordance with rules specially framed by the several provincial authorities. The results of the experiments are reported to the head of the provincial Agricultural Department, who on a careful scrutiny of all the reports received by him, and after such further investigations as he may deem necessary, revises or verifies the standards previously adopted for the districts or the province. This revision is ordinarily made once in five years.

The third factor—the fraction representing the relation of the crop reported on to the normal crop per acre—is what is known as the "anna estimate" or the "percentage estimate." In many parts of India the cultivators estimate the crop outturn in annas or sixteenths, as there are sixteen annas in a rupee. They take a certain number of annas to represent the normal outturn, and estimate the outturn of the year of report as so many annas higher or lower than that normal. But in some tracts sixteen annas express a bumper crop, while in others the same term expresses a normal crop, and the number of annas taken to represent a normal outturn varies between 12 and 16. Consequently the anna estimate of one tract is not always amenable to comparison or combination with that of another tract. The percentage estimate is the American system under which 100 is taken to denote a normal crop and the estimated outturn of the year of report is stated as a percentage of that crop. In 1897 a question arose as to whether the anna notation or the American notation should be used in making crop estimates, and it was strongly urged upon the Government of India that as the cultivators and village officers entrusted with the duty of collecting data for crop reports were mostly accustomed to the Indian system, *i.e.*, the anna notation, the adoption of any other system

would tend to confuse the estimate. Local Governments and Administrations were permitted to adopt such scale of notation as might be suited to local conditions, the object being to secure that the returns should be in terms of a normal crop. But since the anna standard thus adopted would not possess any fixed or uniform value, it was laid down that in published forecasts the anna notation should not be used, the American notation being used in its stead, *i.e.*, 100 being taken to represent a normal crop and the estimated outturn being stated as a percentage of that crop, and the conversion of the anna estimate into the percentage estimate being made either by the district officer or by the provincial authorities.

When these three factors have been determined, they are multiplied into each other to arrive at the required quantitative estimate of outturn. Thus, if the area be 60,000 acres, the standard of normal outturn 500 lbs, and the percentage estimate 80, the required quantitative estimate would be $60{,}000 \times 500 \times \frac{80}{100} = 24{,}000{,}000$ lbs.

APPENDIX II.

METHODS OF COLLECTING THE STATISTICS PROVINCE BY PROVINCE.

United Provinces, (Total cultivated area 35,968,000 acres.)

The estimates prepared by the United Provinces include all the districts of the province, except Almora and Garhwal, for which the required particulars are not available as no regular village papers are kept up by patwaris (village accountants) in these two districts. The area is taken from the crop statements based on field to field inspections, which are compiled by patwaris and checked by higher revenue officers. The estimates of the standard yield are based on the results ascertained from crop-cutting experiments conducted annually in selected districts. The standards, which are separate for irrigated and unirrigated crops, are revised every five years on a consideration of the results of crop-cutting experiments, and are applied to the condition of the crops reported by district officers and selected land-holders whose number exceeds six hundred.

Madras. (Total cultivated area 33,810,000 acres.)

In the Madras Presidency, the estimates relate to all districts in which the respective crops are grown. Approximately two-thirds of the cultivated land in the Presidency is Government or *raiyatwari* land, and has been carefully surveyed. All the village officers therein are appointed and controlled by Government officials. In the ordinary course of his work the village accountant sends every month to the Revenue Inspector (the officer in charge of a group of villages varying in number) a detailed statement of the sowings in his village. For those crops for which forecasts are prepared, the Revenue Inspector, who is himself a touring officer, reports to his Tahsildar, the area in his range under that crop, with his estimates of the average yield expressed in so many annas of the mormal crop, when outturns are required. The Tahsildar consolidates all these figures and reports the total direct to the Director of Agriculture with, in the case of outturn, his estimated yield (also expressed in annas of the normal). The remaining third of the Presidency is *zamindari* (consisting of large proprietary estates), of which only a part has been accurately surveyed, and for which somewhat similar returns are prepared and dealt with accordingly. In other cases the Tahsildar or Deputy Tahsildar estimates the area and yield as well as he can from his own knowledge, and from reports of the estate officials. The figures for these zamindari areas are included but shown separately in the reports sent by the Tahsildars to the Provincial Director of Agriculture. The Native States of Pudukkottai and Banganapalle send similar reports direct to the Director for cotton only. No other Native State in the Presidency prepares any crop forecast. Thus for each forecast return 232 separate reports are received in the Director's office, where they are scrutinized and tabulated. More accurate figures of areas cultivated are obtainable at the end of the year after all the village accounts have been checked. These figures are published later in the provincial Season and Crop Report. The figures reported by Tahsildars in their final forecasts—particularly those from zamindari areas—are checked by a comparison with the forecast reports and the season and crop reports of previous years and the returns from neighbouring Government areas, and thus an attempt is made to rectify obviously inaccurate reporting. Standard rates of outturn have been determined for each crop on a consideration of the latest crop-cutting experiments and of the results on the Government farms. The Director checks the rate of yield reported by Tahsildars by estimates received from non-officials interested in a particular crop.

Bihar and Orissa. (Total cultivated area 27,396,000 acres.)

The estimates for Bihar and Orissa relate to all the districts of the province where the respective crops are grown. Survey and settlement operations have been completed in all districts except five, and in these districts the settlement figures serve as a check on the estimates of acreage based on the information furnished by the police. In the absence of any Revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. In the district of Sambalpur, the acreages under crops are revised annually by the Land Records staff by field-to-field inspection. The system of making crop-cutting tests, as in other provinces over a series of areas and seasons for the ascertainment of standards of yield has been in force in the districts of this province for some twenty years, but sufficiently trustworthy figures of yield have not yet been obtained from these tests to enable Government to accept them as standards. The estimates, therefore, of yield given in the forecasts are based on standards adopted provisionally by the provincial Department of Agriculture on the basis of information obtained from other sources.

Bombay and Sind (Total cultivated area 28,161,000 acres.)

The estimates for the Bombay Presidency include all British districts and Native States where the respective crops are grown to any extent. In the British districts of the Presidency proper the area under different crops is ascertained in the first instance by village officers and recorded in village returns, which are checked by circle inspectors and other revenue officers, and compiled by the former for their circle and then for the taluka. The taluka figures are totalled up for each district in the office of the Director of Agriculture of the province. For Sind this work is done by local officers, and the Director receives district-by-district figures. The information received is for villages for which regular statistics are available, the proportion of reporting area being 91·4 per cent in the Presidency proper and 99·6 per cent in Sind. From 1909-10, however, estimates for the non-reporting areas have been made so far as possible and included in the table. In the case of Native States the acreage is estimated on the best local data available. The approximate numerical strength of the reporting agency is 188 in the Presidency proper, 60 in Sind, and 33 in the Native States. No standard of yield has yet been fixed. Local estimates of crop condition are converted to quantitative

figures on the basis of a formula showing the average yield of crops, which has been adopted provisionally. This formula is now being revised, the revision being based on the ascertainment of actual yield in different parts of the Presidency by careful local enquiry by officers of the provincial Agricultural Department, who are tabulating the results and comparing them for the purpose. The unit of area in the formula is the district, and dry and irrigated crops are separately dealt with. Each year's estimate of the condition of crops is prepared by the mamlatdars (or mahalkaris where the taluk is sub-divided) from notes which they make and from reports from village accountants and circle inspectors. The estimate is sent direct to the Director of Agriculture, who, in the light of the general prospects of the season, makes the quantitative calculations. A copy of the estimate is at the same time sent to the district officer through the sub-divisional officer, who sends his remarks, if any, to the district officer, forwarding a copy of the same to the Director. The district officer on receipt of these remarks forwards to the Director his opinion as regards the general condition of the whole district. For Sind there are no formulæ, and all the necessary information is obtained from the district officers in the form of estimate on the basis of twelve annas for a normal crop, together with quantitative equivalents gathered from general experience. For the Native States condition estimates are obtained, and the formulæ for adjoining British districts are applied.

Bengal. (Total cultivated area 25,149,000 acres.)

The estimates for Bengal relate to all the districts of the Presidency where the respective crops are grown. In the absence of any revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. The system of making crop-cutting experiments, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Bengal for the last nineteen years, but sufficiently trustworthy figures of yield have not yet been obtained from these cuttings to enable Government to accept them as standards. The quantitative estimates therefore of yield given in the forecasts are based on standards adopted provisionally on the basis of information obtained from other sources.

Punjab. (Total cultivated area 23,741,000 acres.)

The estimates for the Punjab relate to all the British districts in which the respective crops are grown. As regards the Native States of the province, reports on wheat and cotton are furnished by all the States in which the two crops are grown to any considerable extent. No estimates for any other crop are prepared by any Native State. The figures of area for all the British districts up to 1912-13 were based on actual measurements by the village revenue staff. Estimates of yield were recorded by district officers after personal enquiry from tahsildars and leading agriculturists. The total number of agriculturists consulted by the district officers and tahsildars must amount to several thousands. From 1913-14, however, this method is followed only in districts in which the respective crops are grown to a considerable extent. For other districts the provincial Director of Land Records prepares conventional forecasts based on the actual average area figures for the previous five years, and an assumed average outturn is determined by him to meet the character of the harvest.

Central Provinces and Berar. (Total cultivated area 24,859,000 acres.)

The estimates for the Central Provinces and Berar relate to all the British districts of the province in which the respective crops reported on are grown. As regards the Native States of the province, reports on wheat only are furnished by the two States of Khairagarh and Nandgaon. No information is available for any other State. The figures of acreage for cotton and sesamum are estimates based on reports furnished by the local officials of the Land Records staff. The figures for wheat and linseed represent the actual areas sown with these crops as disclosed by field-to-field inspection by patwaris. The reporting agency consists of 217 revenue inspectors with, on an average, 24 patwaris working under each inspector. Each tahsil has usually 4 revenue inspectors. Standards of outturn were framed for each crop from the results of crop-cutting experiments on selected fields under the supervision of responsible and selected officials during the years 1884-85 to 1887-88. These standards have been revised from time to time on the basis of the results of crop-cutting experiments since made, the last revision having been made in 1912. The yield expressed by the people in terms of annas in the rupee is converted into percentages, 13·3 annas, or a normal crop, being taken to be equal to 100. A full crop or 16 annas is denoted by 120, and a bumper crop or 20 annas by 150. All deductions based on the standards are made by the provincial Director of Land Records and Settlements from the year's figures furnished by the District officers, who are supposed to bear in mind the standards when estimating the yield of the season.

Burma. (Total cultivated area 13,549,000 acres.)

The estimates for Burma relate to all the districts of the province in which the respective crops reported on are grown. The figures for the districts in which the crops are grown to a considerable extent are based on regular reports, furnished by district officers, while those for the remaining districts are based on rough estimates prepared by the Commissioner of Settlements and Land Records. For the districts from which regular reports are received, the figures of area are obtained from the assessment rolls prepared by revenue surveyors. The original information about the yield is obtained from township officers, inspectors of Land Records, and from the more important of the Land Revenue subordinate officers. In this way the estimate of each district is based on the information furnished by some thirty or more persons. The figures of both area and yield are tabulated by the Superintendent of Land Records and checked by the District officer. The Commissioner of Settlements and Land Records compares the estimated yield with a standard representing the normal yield, which was fixed after an extensive series of experimental crop cuttings by settlement officers.

Assam. (Total cultivated area 5,699,000 acres.)

The estimates for Assam relate to all the districts in which the respective crops reported on are grown to any extent, excluding some of the unimportant hill districts in certain cases. The information is received from district officers, who in their turn obtain figures from mandals (headmen) in the case of the temporarily-settled areas and from zamindars in the case of the permanently-settled tracts. These figures are said to be checked by the sub-divisional and district officers, but, except where the District officer is himself able to do it, there is no valid check at all, and sometimes figures returned by the District officers are more or less inaccurate and inconsistent.

North-West Frontier Province. (Total cultivated area 2,279,000 acres).

The estimates for the North-West Frontier Province relate to all the districts of the province in which the respective crops reported on are grown, including the Tochi agency in the case of wheat, cotton, and sugarcane, and the Kurram agency in the case of wheat and cotton. The figures of area are based on actual measurements made by the patwaris in their field to field inspection in each harvest. They are further checked by higher revenue officers. The estimates of the standard yield are based principally on data derived from a large number of crop-cutting experiments made during the progress of settlement operations. They were framed for each assessment circle, which is the unit of area, and separately for lands irrigated by canals, by wells, for alluvial (*sailab*) lands, and for lands entirely dependent on rain. The standards are applied to the estimates of condition of crops received from the district officers who frame their estimates in consultation with local agriculturists. The exact number of agriculturists consulted by the district officers is not available, but it must necessarily be several hundreds.

Ajmer-Merwara. (Total cultivated area 312,000 acres.)

The estimates for Ajmer-Merwara relate to the whole of the district. So far as *khalsa** *jagir* and minor *istamrari* villages are concerned, the patwari is responsible for making field-to-field inspections of every village in his circle at each harvest. These inspections commence on 1st September for the autumn harvest and on 1st February for the spring harvest. The patwari notes down the results of his local inquiries and inspections in his field book. A certain percentage of the entries made by the patwari is checked and corrected, when necessary, by the girdawar or kanungo, who also inspects the crops at each harvest. The tahsil officers further test a certain number of entries, and the sub-divisional officer also makes a general inspection of crops at each harvest. As soon as the inspection of the harvest is complete an abstract statement of area and outturn is compiled separately for each girdawar's circle and tahsil, and these statements are then consolidated for the three sub-divisions in the district office. An assumed normal outturn per acre for each crop has been fixed at settlement. Crop estimates are annually made by the revenue officers and the results recorded. These sets of figures give a useful check on the outturn estimates made by the patwaris. The exact area sown in the sub-divisions is obtained from the abstract statements. In the large *istamrari* estates the preparation of the field books is done by the estate officials. These field books contain fairly accurate information in regard to wheat, the outturn of which in maunds is generally appraised for the purpose of payment of the cultivators' rent; but as regards cotton and sesamum the figures are conjectural, as no crop-cutting experiments are made, the rents being charged in cash. The Government agency does not supervise the collection of figures in large *istamrari* estates.

Central India.

Estimates for wheat and cotton are received from the Native States in Central India; but they are in many cases imperfect. In the States of Indore, Gwalior, Rajgarh, Narsingarh, Kilchipur, Kurwai, Piploda, Bagli, Sitamau, Sailana, Jaora, Ratlam, Dewas, (Senior and Junior), Dhar, Barwani, and Jhabua, the figures of area are based on crop statements prepared by patwaris under the supervision of superior Revenue or Land Records officers. The returns include areas held revenue-free or on privileged tenure, but the figures for these areas are based on imperfect data in most cases and can be taken as rough estimates only. In the States of Pathari, Mahammadgarh, and Alirajpur the figures are based on rough estimates. As regards yield, the estimates are for the most part conjectural, no standard of average yield having been framed except in the States of Narsingarh, Dhar, Jhabua, Kurwai, Pathari, and Mahammadgarh.

Rajputana.

The estimates for wheat and cotton furnished by the States in Rajputana are generally defective in consequence of the absence of figures for unsurveyed areas and privileged tenures in many cases.

Hyderabad.

The estimates for wheat, cotton, and oilseeds furnished by the Hyderabad State excluded until 1902-03 jagir and other revenue-free lands or privileged tenures; since then estimates for these areas have been procured as far as possible and included in the statement.

Mysore. (Total cultivated area 6,185,000 acres.)

The estimates furnished by the Mysore State relate to all the districts of the State in which the respective crops are grown. As regards area the information is based on the entries made by the *shanbog* (village accountant) in his crop inspection book and checked by the higher revenue officers. The outturn is noted by the *shanbog* in terms of annas (16 annas being taken for a normal or 100 per cent crop) from which the total yield is determined by reference to the standard normal outturn per acre fixed for each taluk. The figures are finally scrutinized and consolidated in the Revenue Commissioner's office.

---

* *Khalsa* villages are those which pay full revenue to Government

INDEX.

	Pages.
American Notation	19, 20
Anna estimate	*ib.*
Area—	
Bajra (*Pennisetum typhoideum*)	16
Barley (*Hordeum vulgare*)	16
Cotton (*Gossypium sp.*)	10
Gram (*Cicer arictinum*)	17
Groundnut (*Arachis hypogœa*)	14
Indigo (*Indigofera tinctoria*)	*ib.*
Jawar (*Sorghum vulgare*)	16
Jute (*Corchorus sp.*)	11
Linseed (*Linum usitatissimum*)	11
Maize (*Zea Mays*)	17
Rape and Mustard (*Brassica sp.*)	12
Rice (*Oryza sativa*)	7
Sesamum (*Sesamum indicum*)	13
Sugarcane (*Saccharum officinarum*)	9
Tea (*Camellia theifera*)	9
Wheat (*Triticum sativum*)	8
Area of crops, how ascertained	19, 21, 22, 23
Bajra—	
Area	16
Yield	*ib.*
Barley—	
Area	16
Yield	*ib.*
Charts	*frontispiece*
Cotton—	
Area	2, 10
Consumption	2, 10
Exports	2, 10
Yield	2, 10
Crop-cutting experiments	19
Development of the estimates	1
Gram—	
Area	17
Yield	*ib.*
Groundnut—	
Area	14
Yield	*ib.*
Indian Notation	19
Indigo—	
Area	14
Yield	*ib.*
Jawar—	
Area	16
Yield	*ib.*
Jute—	
Area	11
Yield	*ib.*
Linseed—	
Area	11
Yield	*ib.*
Maize—	
Area	17
Yield	*ib.*
Method of framing estimates of crops	19, 20
Methods of collecting statistics	21—23
Mixed crop, treatment of—	19
Mustard (see Rape and Mustard)	
Normal crop, definition of—	19
Notation for making crop estimates	19, 20
Percentage estimate	19, 20
Rape and Mustard—	
Area	12
Yield	*ib.*
Rice—	
Area	7
Yield	*ib.*
Season, leading features of—	1-4
Sesamum—	
Area	13
Yield	*ib.*
Source and scope of the estimates	1
Standard normal outturn	19
Sugarcane—	
Area	9
Yield	*ib.*
Tea—	
Area	9
Yield	*ib.*
Wheat—	
Area	8
Yield	*ib.*
Yield—	
Bajra	16
Barley	16
Cotton	6, 10
Gram	17
Groundnut	6, 14
Indigo	6, 14
Jawar	16
Jute	6, 11
Linseed	6, 11
Maize	17
Rape and mustard	6, 12
Rice	6, 7
Sesamum	6, 13
Sugarcane	6, 9
Tea	6, 9
Wheat	6, 8
Yield per acre—	
Cotton	15
Groundnut	*ib.*
Indigo	*ib.*
Jute	*ib.*
Linseed	*ib.*
Rape and Mustard	*ib.*
Rice	*ib.*
Sesamum	*ib.*
Sugarcane	*ib.*
Tea	*ib.*
Wheat	*ib.*

CALCUTTA : PRINTED BY SUPDT. GOVT. PRINTING, INDIA, 8, HASTINGS STREET.

BOMBAY BRANCH

OF THE

Royal Asiatic Society.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

134321

SEVENTEENTH ISSUE]

DEPARTMENT OF STATISTICS, INDIA

2048
X11

ESTIMATES

OF

AREA AND YIELD

OF

Principal Crops in India

1914-15

Published by order of the Governor General in Council

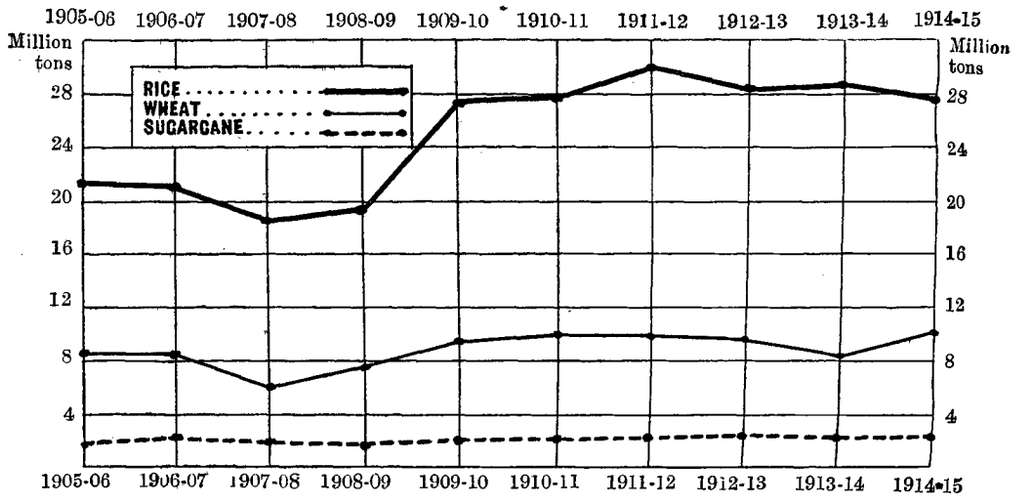
CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1915

PRICE FOUR ANNAS

YIELD OF CERTAIN PRINCIPAL CROPS FROM 1905-06 TO 1914-15.

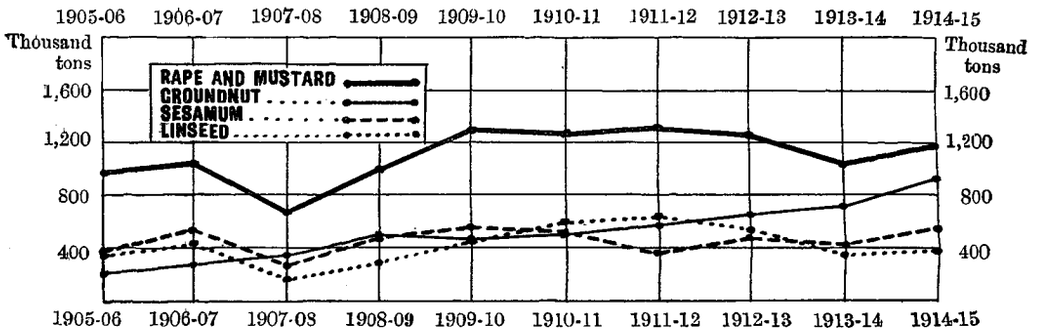
RICE, WHEAT AND SUGARCANE.

(In millions of tons.)



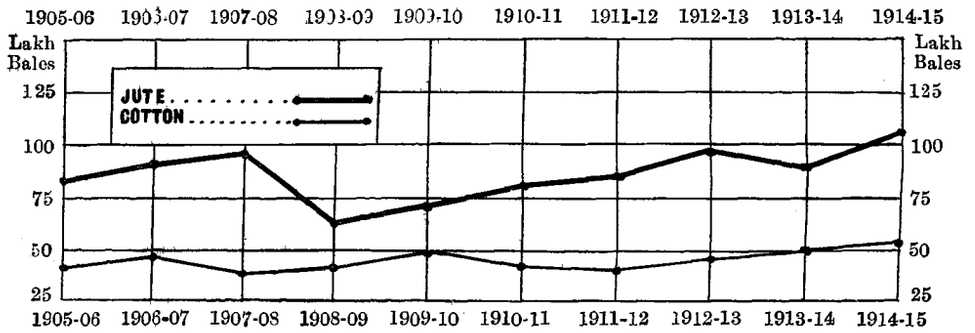
SESAMUM, LINSEED, RAPE AND MUSTARD AND GROUNDNUT.

(In thousands of tons.)



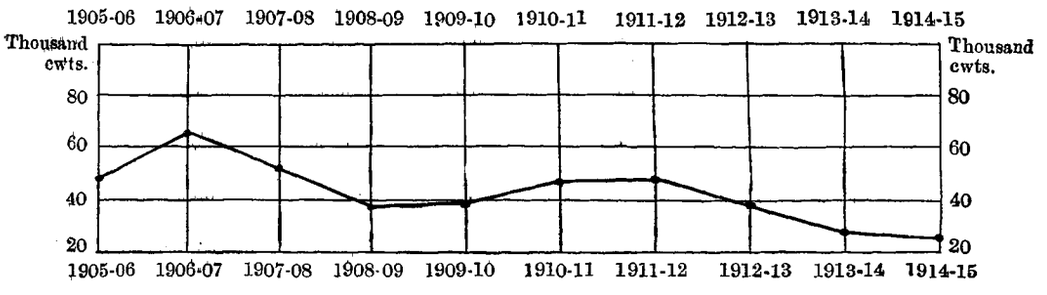
COTTON AND JUTE.

(In lakhs of bales.)



INDIGO.

(In thousands of cwts.)



Estimates of Area and Yield of Principal Crops in India, 1914-15

INTRODUCTORY NOTE.

The present issue is the seventeenth of the series and relates to the area and yield of the principal crops for which estimates were made in 1914-15. It is the second of the new series that was commenced last year. A table showing the actual rainfall in the last eight years, as compared with the normal rainfall, in each province, and a statement showing the normal yield per acre of each crop have been inserted in this issue.

Source and scope of the estimates.

The periodical estimates or forecasts of certain crops are compiled from local returns and issued by this Department. The general practice is to issue a preliminary forecast, a second estimate, and a third or final estimate—fuller and more precise in data than the two former forecasts. The figures in the tables in this volume are those given in the final forecasts. They show the area sown and the estimated yield in the last ten years of: rice, wheat, sugarcane, tea*, cotton, jute, linseed, rape and mustard, sesamum, groundnut, and indigo.

Gradual development.

The estimates for these crops did not, especially in the earlier years of forecasts in India, relate to the total producing areas, but only to those tracts where the respective crops were grown on an extensive, and commercial scale. Tracts of minor importance have been added gradually as will be seen from the tables and the footnotes thereto. It should, therefore, be remembered that, owing to this gradual development, the estimates in the forecasts for earlier years are not altogether strictly comparable with those for later years, as is the case with the agricultural statistics of British India, published in Volume I of Agricultural Statistics of India. The increase in this respect, however, between the year under report as against the two previous years is so small as to be negligible and to afford a comparison of the crops of the year (1914-15) with the two preceding years. At present the estimates for cotton, wheat, and jute relate to all the tracts in India where these crops are grown to any extent, excluding certain unimportant outlying tracts, such as Baluchistan, Kashmir, Nepal, and Sikkim. For other crops, however, the estimates, though relating to all the British provinces where they are grown to any considerable extent (excepting Burma in the case of sesamum), still exclude the Native States, except those in the Bombay Presidency and the States of Hyderabad and Baroda in certain cases. Further details regarding the reporting tracts are given in paragraphs below and in Appendix II on pages 21-23.

Estimates, so far as available, for certain other staple crops, namely, barley, jawar, bajra, maize, and gram, have been shown in a supplementary table (No. 14), the figures being taken from the provincial Season and Crop Reports.

Leading features of the season.

The deficient rainfall of June somewhat affected the jute crop. In Northern and Western India and in the Hyderabad State the heavy rains in September were injurious to the cotton crop. With these exceptions the season was on the whole favourable for the *kharif* (autumn) crops. The winter rice crop was adversely affected by deficient rainfall towards the latter part of the season in Bengal, Bihar and Orissa, Burma, the United Provinces, and Assam; in Madras the season was on the whole good for the crop, though it was partly damaged by floods; in Bombay, Sind, and the Central Provinces and Berar the season was on the whole favourable.

For the *rabi* (spring) crops the season was generally favourable, except in Bengal and Bihar and Orissa, where the crops were affected by deficient

* For the tea crop no forecast is prepared; the figures are taken from the Annual Report on the Production of Tea in India published by this Department.

rainfall. In the southern and eastern districts of the United Provinces the *rabi* oilseeds suffered from the absence of rain in the early months. Some damage was done to wheat by rain and hail at harvest time.

Rice.

Rice, which is generally regarded as a winter crop, is mainly harvested in December and January. It is sown in the months from May to August. The provinces to which the estimates for rice now relate are Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, the Central Provinces and Berar, Assam, Bombay, Sind, and Coorg. These tracts comprise 99 per cent of the total rice area of British India. The only Native States for which estimates for rice are prepared are those in the Bombay Presidency. The total area under rice in all these tracts in 1914-15 was reported as 76,181,000 acres as compared with 75,425,000 acres of the preceding year. In the three important provinces of Bengal, Bihar and Orissa, and Burma the monsoon was short towards the latter part of the season, and the outturn was accordingly below normal. Elsewhere the season was, on the whole, favourable. The total estimated yield was 27,964,000 tons as against 28,790,000 tons in 1913-14. To this figure should be added some 1 per cent in respect of other British provinces (containing about 742,000 acres under rice) for which no estimates are made.

Wheat.

Wheat, which is a *rabi* (spring) crop in India, is sown from October to December and harvested from March to May. The provinces and states to which the estimates for this crop relate are the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, the Central Provinces and Berar, Bombay, Sind, Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad, and Mysore. These contain practically the whole of the reported area under wheat in India. The total area under wheat in 1914-15 was reported to be 32,230,000 acres, which exceeds the area of the preceding year by 3,755,000 acres or 13 per cent. The seasonal conditions were, on the whole, favourable, except in the two Provinces of Bihar and Orissa and Bengal, where the wheat crop is not of much importance. Some damage to the crop was, however, caused by rain and hail in April in almost all the tracts. The total estimated yield was 10,269,000 tons, which exceeds the final figure of 1913-14 by 1,911,000 tons or 23 per cent.

Sugarcane.

The sugarcane crop is planted from February to May and harvested from November to January. The provinces to which the reports on this crop relate are the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, Bombay, Sind, Madras, and the Central Provinces and Berar. These tracts contain 99·4 per cent of the total area under sugarcane in British India. Reports are also received from the Native States in the Bombay Presidency (including the Baroda State). No report is received from any other Native State. The total reported area (2,315,000 acres) under sugarcane in 1914-15 was 9 per cent less than that of the preceding year. The decrease in acreage, which occurred in all the provinces except Bengal and Bihar and Orissa, was due to deficient moisture at sowing time and scarcity of seed-cane owing to the drought of 1913. The estimated yield (2,367,000 tons) was, however, 3 per cent above the final figure (2,291,000 tons) of the preceding year.

Tea.

The provinces where tea is grown are Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma, and the State of Travancore. The total area under tea in 1914 was reported to be 622,600 acres, which is 2 per cent greater than that in the preceding year. The weather was favourable from May to July. The following three months—August, September, and October—were only fair, and an early cold weather checked growth severely in November and December. The total production of manufactured tea (both black and green) was reported to be 312,976,200 lbs. in 1914 as against 307,249,600 lbs. in the preceding year.

Cotton.

The total reported area under cotton was 24,634,000 acres in 1914-15 as against 25,023,000 acres in 1913-14. The crop was affected adversely by heavy rain in parts of the Bombay Presidency, in the Punjab, the United Provinces, and in the Hyderabad State. With these exceptions, the conditions of the

season were generally favourable. The total estimated outturn was 5,233,000 bales of 400 lbs. each, which is 167,000 bales or 3 per cent more than the final figure of 1913-14. The figure for 1914-15 for outturn is the highest ever returned. The marginal statement compares the estimates of yield for the last three years with the sum of net exports and internal consumption (in thousands of bales).

	Thousand bales		
	1912-13	1913-14	1914-15
Net exports . .	2,228	3,647	2,118
Mill consumption . .	1,805	1,816	1,771
Consumption outside mills (conjectural) . .	450	450	1,000
Total .	4,483	5,913	4,889
Estimate of yield . .	4,610	5,066	5,233
Excess (+) or deficit (−)	+127	−847	+344

There are, it may be remembered, two crops of cotton grown in India, *viz.*, the early and the late. Early cotton grows principally in northern and central India, and late cotton largely in southern and western India. Taking both the crops together, the sowing season extends from March to August and the harvesting season from October to April. In parts of Southern India sowings continue till October and harvesting till July. The estimates given above relate to all the cotton-growing provinces and states in India.

Jute. Jute is sown from March to May and harvested in August and September. The provinces where it is grown are Bengal, Bihar and Orissa, and Assam. It is also grown to a small extent in the Nepal State, but no reliable information is available for that State. The total reported area under jute in 1914 (3,359,000 acres) exceeded that of the preceding year by 15 per cent, and the estimated yield (10,444,000 bales of 400 lbs. each) by 17 per cent. The crop suffered from deficient rainfall in June, particularly in the northern districts of Bengal. In 1915 the estimated area and yield were 2,377,000 acres and 7,345,000 bales.

Linseed. Linseed is a *rabi* (spring) crop, being sown from August to October and harvested from January to April. The provinces to which the estimates for linseed relate are the United Provinces, the Central Provinces and Berar, Bengal, Bihar and Orissa, the Punjab, and Bombay. These tracts compris 99 per cent of the total area under linseed in British India. Reports are als made by the States of Hyderabad and Baroda and by the states in the Bomba Presidency. No report is received from any other Native State. The tota area under linseed reported by all these tracts in 1914-15 was 3,329,000 acres which was 9 per cent larger than the final figure of the preceding year The condition of the crop was from fair to good, except in Bihar and Orissa an Bengal, and in the southern districts of the United Provinces, where the crop were adversely affected by drought. The total estimated yield (395,000 tons, was larger than that of the preceding year by 2 per cent.

Rape and mustard. Rape and mustard are also *rabi* (spring) oilseeds, being sown from August to October and harvested from January to April. The provinces from which reports are received are the Punjab, Bengal, Bihar and Orissa, Assam, the United Provinces, the North-West Frontier Province, Bombay, and Sind. These tracts contain 99·2 per cent of the total area under rape and mustard in British India. Reports are also received from the States of Hyderabad and Baroda and from the states in the Bombay Presidency. No report is received from any other Native State. The total area under rape and mustard reported by all the reporting tracts in 1914-15 was 6,524,000 acres, which is 4 per cent larger than the figure for the preceding year. The condition of the crop on the whole was from fair to good, except in Bihar and Orissa and Bengal, and in the eastern districts of the United Provinces, where the crops were adversely affected by drought. The total estimated yield (1,208,000 tons) was 10 per cent above the final figure of the preceding year.

Sesamum. Sesamum is mainly a *kharif* (autumn) crop, being sown from May to July and harvested from October to December; in parts of Southern India sowing continues till September or October and harvesting till March or April. A *rabi* or summer variety is also grown in certain tracts; this is sown in January and February and harvested in May to July. The provinces* to which the estimates for sesamum relate are the Central Provinces and Berar, Bombay, Sind, Madras, the United Provinces, Bengal, Bihar and Orissa, the Punjab, and

* Assam prepared forecasts of sesamum for a few years (1910-11 to 1913-14), but has discontinued them with effect from 1914-15.

Ajmer-Merwara. These tracts contain about 79 per cent of the total area under sesamum in British India. Reports are also received from the Native States of Hyderabad and Baroda and those in the Bombay Presidency. No report is received from any other Native State or from Burma. The total reported area under sesamum in 1914-15 was 5,463,000 acres against 5,076,000 acres in the preceding year. The seasonal conditions on the whole were not very favourable, although better than in the preceding year. The total estimated yield was 578,000 tons as against 403,000 tons in 1913-14—an increase of 43 per cent. An addition of approximately 20 per cent should be made to this figure in respect of other British provinces (containing an aggregate area of about 1,095,000 acres under sesamum) for which no estimate is made.

Groundnut.

The groundnut crop is sown from May to August and is harvested from November to January. The provinces to which the estimates for this crop relate are Madras, Bombay (including Native States), and Burma, these being the provinces where groundnut is grown to a considerable extent. The total area under groundnut in these three provinces in 1914-15 was reported as 1,995,000 acres, which is 5 per cent less than the figure of the preceding year, the estimated yield (929,000 tons) being 24 per cent in excess of last year. The decrease in area was mainly in the Bombay and the Madras Presidencies and was due to unfavourable weather conditions at sowing time. Conditions after sowing proved generally fair for the growth of the crop.

Indigo.

The indigo crop is sown from February to July and harvested from August to November. The provinces to which the estimates for indigo relate are Bihar and Orissa, Bengal, the United Provinces, the Punjab, Bombay, Sind, and Madras. These tracts contain 99·9 per cent of the total area under indigo in British India. No report is received from any Native State, except the State of Khairpur in Sind. The cultivation of indigo continues to decline, the total reported area (132,000 acres) in 1914-15 being 24 per cent short of that of the preceding year. In the earlier part of the season the crop suffered through excessive rain in parts of the United Provinces and through want of rain in North Bihar. In the remaining districts of Bihar and Orissa the weather was generally favourable. With these exceptions the seasonal conditions were not adverse. The total estimated yield of dye was 25,000 cwts, which was less than the figure of the preceding year by 7 per cent.

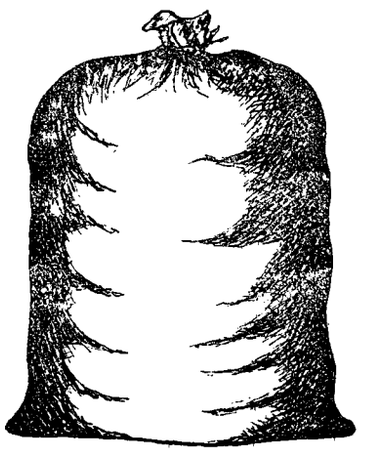
G. FINDLAY SHIRRAS,
Director of Statistics.

DEPARTMENT OF STATISTICS, INDIA,
Calcutta, November 11, 1915.

Estimated yield of Rice, Wheat, Sugarcane, Rape and Mustard, Sesamum, Linseed and Groundnut in 1914-15, as compared with the year 1909-10 (five years ago).

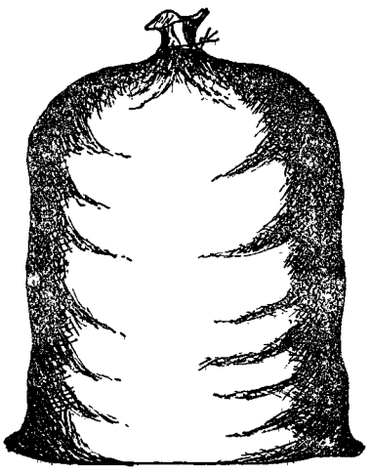
RICE

1909-10



27,857,000 tons.

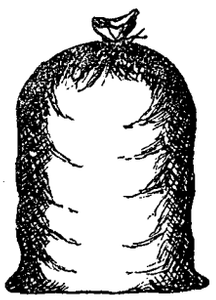
1914-15



27,964,000 tons.

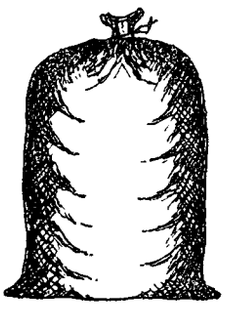
WHEAT

1909-10



9,633,000 tons.

1914-15



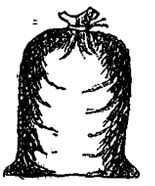
10,269,000 tons.

SUGARCANE

1909-10

2,127,000 tons.

1914-15



2,367,000 tons.

RAPE and MUSTARD

1909-10

1,270,200 tons.

1914-15

1,208,200 tons.

SESAMUM

1909-10

560,800 tons.

1914-15

578,200 tons.

GROUNDNUT

1909-10

459,300 tons.

1914-15

929,200 tons.

LINSEED

1909-10

427,800 tons.

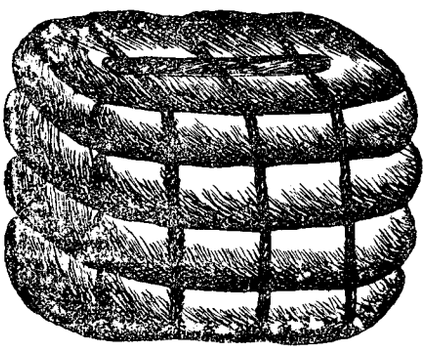
1914-15

394,800 tons.

Estimated yield of Jute, Cotton and Indigo in 1914-15, as compared with the year 1909-10 (five years ago).

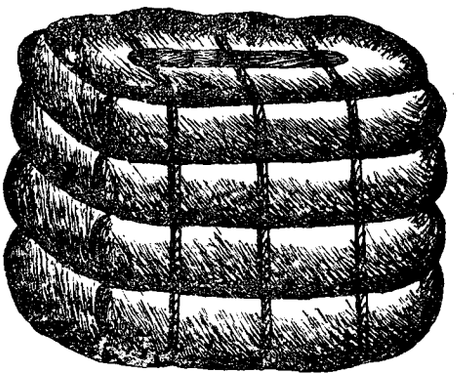
JUTE

1909-10



7,207,000 bales.

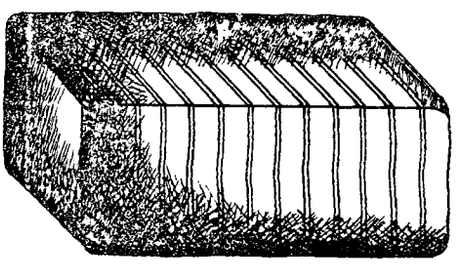
1914-15



10,444,000 bales.

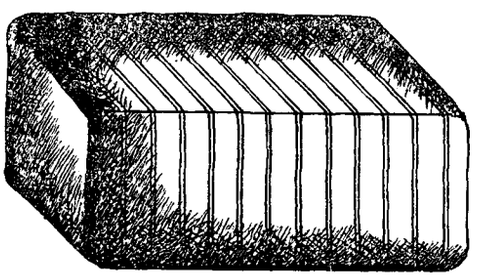
COTTON

1909-10



4,718,000 bales.

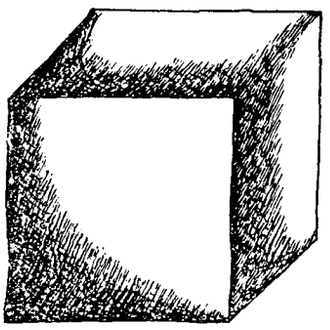
1914-15



5,233,000 bales.

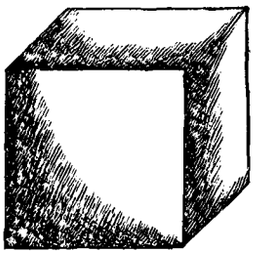
INDIGO

1909-10



39,300 cwts.

1914-15



24,900 cwts.

N.B.—The diagrams for Indigo are on a larger scale than those for Cotton and Jute.

TABLES

NO. 1.—ABSTRACT TABLE—AREA AND YIELD OF EACH CROP

Area (acres)

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	Average 1910-11 to 1914-15
Rice . .	50,855,000	50,067,000	54,894,000	58,029,000	64,726,000	71,623,000	75,425,000	76,181,000	69,197,000
Wheat . .	22,649,000	25,518,000	26,565,000	30,565,000	31,141,000	30,043,000	28,475,000	32,230,000	30,491,000
Sugarcane .	(a)	2,258,000	2,284,000	2,114,600	2,380,300	2,526,700	2,545,500	2,315,100	2,376,400
Tea . . .	467,000	525,000	540,000	563,600	574,600	591,800	610,100	622,600	592,500
Cotton . .	13,866,000	16,652,000	21,146,000	22,596,000	21,615,000	22,028,000	25,023,000	24,634,000	23,179,000
Jute . .	2,035,000	2,335,000	3,264,000	2,937,800	3,106,400	2,970,500	2,911,000	3,358,700	3,056,900
Linseed . .	2,869,000	3,547,000	3,061,000	3,742,400	5,038,000	4,124,900	3,031,000	3,328,900	3,853,000
Rape and Mustard	4,541,000	5,598,000	6,056,000	6,315,900	6,990,300	5,955,800	6,266,400	6,524,200	6,410,500
Sesamum . .	4,019,000	4,903,000	4,915,000	5,206,000	4,808,100	4,989,500	5,076,000	5,463,400	5,108,600
Groundnut . .	(a)	431,000	827,000	951,900	1,214,100	1,366,400	2,105,900	1,995,300	1,526,700
Indigo . .	1,280,000	722,000	354,000	276,400	266,900	220,100	172,600	131,700	213,500

Yield

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	Average 1910-11 to 1914-15
Rice . . tons	21,466,000	21,550,000	21,882,000	27,897,000	30,074,000	28,485,000	28,790,000	27,964,000	28,642,000
Wheat . „	6,029,000	7,676,000	8,092,000	10,061,500	9,924,500	9,853,000	8,358,000	10,269,000	9,693,200
Sugarcane . „	(a)	2,049,000	1,996,000	2,217,800	2,451,100	2,583,600	2,291,500	2,367,200	2,382,200
Tea . . lbs.	158,375,000	201,389,000	242,386,000	263,269,400	268,602,700	297,878,100	307,249,600	312,976,200	289,995,200
Cotton . bales	2,303,000	3,203,000	3,976,000	3,853,000	3,288,000	4,610,000	5,066,000	5,233,000	4,410,000
Jute . . „	5,771,000	7,036,000	8,136,000	7,932,000	8,234,700	9,842,800	8,893,900	10,443,900	9,069,500
Linseed . tons	352,000	416,000	333,000	571,300	644,900	542,100	386,200	394,800	507,900
Rape and Mustard . „	915,000	1,011,000	992,000	1,250,100	1,325,700	1,241,200	1,087,500	1,208,200	1,222,500
Sesamum . „	348,000	465,000	448,000	511,800	397,600	474,000	403,500	578,200	473,000
Groundnut . „	(a)	(a)	358,000	503,200	605,700	669,900	748,800	929,200	691,400
Indigo . cwts	156,000	100,000	49,000	46,000	47,700	39,100	26,800	24,900	36,900

Note.—Figures for 1914-15 are subject to revision. The estimates for 1915-16, so far as available, are:—

Rice . .	74,431,000 acres	Sesamum . .	3,167,000 acres
Sugarcane .	2,508,000 „	Groundnut . .	1,742,000 „
Cotton . .	16,253,000 „	Indigo . . .	258,000 „
Jute . .	2,377,300 „ and 7,345,500 bales		

(a) Not available.

No. 2.—AREA AND YIELD OF RICE IN EACH PROVINCE

Area (acres)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bengal (*a*) . .	41,111,000	40,239,000	40,210,000	38,158,000	42,977,000	42,793,000	20,437,000	20,639,000	19,846,000	20,416,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	17,363,000	16,196,000	16,223,000	16,166,000
Madras (*b*) . .	6,604,000	6,944,000	7,215,000	7,361,000	7,675,000	7,787,000	10,288,000	10,944,000	10,678,000	10,560,000
Burma (*e*) . .	6,713,000	6,974,000	7,252,000	7,569,000	7,467,000	7,449,000	7,373,000	9,966,000	10,056,000	10,010,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	5,220,000	6,811,000	6,062,000	6,216,000
Central Provinces and Berar . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	4,986,000	5,083,000
Assam . . .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	4,045,000	4,272,000	3,752,000	3,916,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,624,000	2,628,000	2,596,000
Sind (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,088,000	1,112,000	1,137,000
Coorg . . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	83,000	82,000	81,000
TOTAL .	54,428,000	54,157,000	54,677,000	53,088,000	58,119,000	58,029,000	64,726,000	71,623,000	75,425,000	76,181,000

Yield (tons)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bengal (*a*) . .	16,468,000	15,769,000	13,328,000	14,131,000	21,780,000 (*g*)	21,848,000 (*g*)	8,635,000	8,356,000	7,412,000	6,395,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	8,906,000	5,969,000	8,120,000	5,960,000
Madras (*b*) . .	2,292,000	2,522,000	2,475,000	2,185,000	2,868,000	3,174,000	5,833,000	4,435,000	4,186,000	4,888,000
Burma (*e*) . .	2,897,000	3,096,000	3,157,000	3,233,000	3,209,000	2,875,000	3,325,000	4,501,000	4,037,000	3,662,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,779,000	1,998,000	1,264,000	2,037,000
Central Provinces and Berar . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	825,000	1,655,000
Assam . . .	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	1,596,000	1,948,000	1,310,000	1,420,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	820,000	1,279,000	1,437,000
Sind (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	405,000	322,000	458,000
Coorg . . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	53,000	35,000	52,000
TOTAL .	21,657,000	21,387,000	18,960,000	19,549,000	27,857,000	27,897,000	30,074,000	28,485,000	28,790,000	27,964,000

(*a*) Includes Bihar and Orissa and Assam down to 1910-11.
(*b*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included. The estimates for years prior to 1911-12 are generally defective.
(*c*) Included under Bengal.
(*d*) Not available.
(*e*) The figures down to 1911-12 relate only to the chief rice-growing districts in Lower Burma.
(*f*) The estimates for Bombay and Sind relate to chief rice-growing districts.
(*g*) Season very favourable.

Note.—Figures for 1914-15 are subject to revision.

No. 3.—AREA AND YIELD OF WHEAT IN EACH PROVINCE

Area (acres)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Punjab (*a*)	8,572,000	9,100,000	8,272,000	9,002,000	9,142,000	9,981,000	11,018,000	9,316,000	9,588,000	11,195,000
United Provinces	6,479,000	7,044,000	4,406,000	5,695,000	6,491,000	7,342,000	7,578,000	7,382,000	6,406,000	7,303,000
Central Provinces and Berar (*b*)	3,444,000	3,714,000	2,801,000	2,860,000	3,176,000	3,585,000	3,739,000	3,743,000	3,384,000	3,393,000
Central India States	1,852,000	2,448,000	1,694,000	2,046,000	2,313,000	2,460,000	2,563,000	3,216,000	2,695,000	3,096,000
Bombay (including Native States) (*c*)	1,347,000	1,663,000	1,678,000	1,746,000	1,820,000	1,855,000	1,284,000	1,735,000	2,102,000	2,194,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,312,000	1,285,000	1,270,000	1,342,000	1,218,000
North-West Frontier Province (*e*)	1,025,000	1,146,000	978,000	1,019,000	1,008,000	1,033,000	1,203,000	879,000	992,000	1,176,000
Hyderabad State	934,000	1,040,000	933,000	1,098,000	1,097,000	1,104,000	970,000	851,000	702,000	898,000
Rajputana States	666,000	842,000	604,000	888,000	1,085,000	1,187,000	963,000	1,014,000	622,000	904,000
Sind (including Native States)	628,000	672,000	447,000	548,000	471,000	560,000	391,000	487,000	490,000	696,000
Bengal (*f*)	1,408,000	1,539,000	1,096,000	1,332,000	1,500,000	143,000	143,000	146,000	144,000	134,000
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	5,000	19,000
Mysore State	2,000	4,000	2,000	2,000	3,000	3,000	4,000	4,000	3,000	4,000
TOTAL	26,357,000	29,212,000	22,911,000	26,236,000	28,106,000	30,565,000	31,141,000	30,043,000	28,475,000	32,230,000

Yield (tons)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Punjab (*a*)	3,510,000	3,267,000	2,489,000	3,062,000	3,434,000	3,709,000	3,809,000	2,989,000	3,189,000	3,925,000
United Provinces	2,429,000	2,165,000	1,675,000	2,124,000	2,975,000	2,919,000	3,032,000	2,938,000	2,221,000	3,041,000
Central Provinces and Berar (*b*)	834,000	904,000	507,000	721,000	992,000	973,000	904,000	1,062,000	688,000	789,000
Central India States	420,000	615,000	271,000	397,000	514,000	582,000	686,000	1,049,000	496,000	642,000
Bombay (including Native States) (*c*)	275,000	338,000	336,000	383,000	451,000	506,000	265,000	543,000	506,000	584,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	570,000	557,000	529,000	583,000	347,000
North-West Frontier Province (*e*)	280,000	305,000	213,000	213,000	235,000	266,000	280,000	195,000	259,000	301,000
Hyderabad State	42,000	109,000	67,000	72,000	68,000	97,000	43,000	48,000	43,000	51,000
Rajputana States	137,000	182,000	133,000	199,000	266,000	265,000	204,000	244,000	122,000	219,000
Sind (including Native States)	196,000	186,000	113,000	134,000	132,000	136,000	97,000	204,000	197,000	332,000
Bengal (*f*)	447,000	421,000	321,000	334,000	566,000	38,000	47,000	51,000	51,000	32,000
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	2,000	5,000
Mysore State	100	700	600	200	400	500	500	1,000	1,000	1,000
TOTAL	8,570,100	8,492,700	6,125,600	7,639,200	9,633,400	10,061,500	9,924,500	9,853,000	8,358,000	10,269,000

(*a*) Includes Native States from 1907-08.
(*b*) Includes the Native States of Khairagarh and Nandgaon from 1907-08.
(*c*) Includes the Native State of Baroda.
(*d*) Included under Bengal.
(*e*) Includes the Tochi Agency and from 1906-07 the Kurram Agency.
(*f*) Includes Bihar and Orissa up to 1909-10.
(*g*) Not available.

NOTE.—Figures for 1914-15 are as reported in the final forecast issued on the 27th May 1915 and are subject to revision.

No. 4.—AREA AND YIELD OF SUGARCANE IN EACH PROVINCE

Area (acres)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces	1,228,900	1,386,700	1,481,700	1,120,100	1,037,600	1,047,100	1,340,600	1,425,400	1,379,900	1,194,200
Punjab (*a*)	172,700	277,700	391,800	365,700	403,800	387,900	284,800	367,000	410,900	366,300
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	263,000	266,100	262,800	270,300
Bengal (*c*)	623,100	606,700	607,200	553,000	507,800	515,600	223,300	221,800	218,300	233,400
Bombay (including Native States)(*e*)	(*d*)	(*d*)	74,300	92,800	89,200	83,400	94,700	79,400	91,400	85,700
Madras (*f*)	60,700	52,100	49,000	43,700	43,800	47,900	107,700	98,800	83,600	76,300
Assam	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	34,700	38,200	46,500	38,500
North-West Frontier Province (*g*)	25,600	28,600	35,200	27,500	30,600	32,700	31,500	30,000	31,700	31,600
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	20,400	18,800
TOTAL	2,111,000	2,351,800	2,639,200	2,202,800	2,112,800	2,114,600	2,380,300	2,526,700	2,545,500	2,315,100

Yield (tons) of raw sugar (gûr)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces	884,000	1,264,600	916,700	844,200	955,200	1,042,900	1,259,300	1,301,500	974,500	1,093,200
Punjab (*a*)	89,000	212,800	238,700	265,600	328,700	262,600	161,200	274,300	308,900	265,800
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	303,800	292,700	289,100	282,500
Bengal (*c*)	615,200	594,700	583,100	430,800	495,800	563,500	256,300	263,200	244,800	249,600
Bombay (including Native States)(*e*)	(*d*)	(*d*)	184,200	221,200	232,300	226,000	214,600	180,700	228,000	229,000
Madras (*f*)	114,500	100,400	92,000	81,000	82,000	87,100	196,000	204,500	150,000	157,900
Assam	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	28,000	33,100	39,400	31,100
North-West Frontier Province (*g*)	22,800	32,800	32,200	30,100	33,100	35,700	31,900	33,600	35,100	36,100
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	21,700	22,000
TOTAL	1,725,500	2,205,300	2,046,900	1,872,900	2,127,100	2,217,800	2,451,100	2,583,600	2,291,500	2,367,200

(*a*) Figures for years prior to 1913-14 exclude unimportant districts
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa down to 1910-11
(*d*) Not available
(*e*) Includes Sind from 1912-13
(*f*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and *whole inam* villages have also been included
(*g*) Up to 1912-13 the figures related to three selected districts. From 1913-14 all the districts including the Tochi Agency have been reported on

NOTE.—Figures for 1914-15 are subject to revision

No. 5.—AREA AND YIELD OF TEA IN EACH PROVINCE

Area (acres)

Province.	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Assam	339,200	339,200	342,300	345,600	348,000	350,200	354,300	361,700	367,800	376,000
Bengal	136,200	136,500	139,500	141,600	143,200	145,900	146,800	150,500	156,100	159,100
Travancore	25,200	27,500	26,000	27,100	29,200	30,400	32,000	34,100	37,400	38,800
Madras	8,600	10,100	11,000	14,600	15,700	18,100	20,600	24,400	26,300	26,200
United Provinces	7,900	8,000	8,000	8,100	8,100	7,900	7,600	7,800	8,000	8,000
Punjab	9,400	9,400	9,400	9,400	9,400	9,400	9,400	9,300	9,300	9,300
Bihar and Orissa (*a*)	...	...	...	..	...	...	2,200	2,300	2,200	2,200
Burma	1,500	1,500	1,700	1,700	1,700	1,700	1,700	1,700	3,000	3,000
TOTAL	528,000	532,200	537,900	548,100	555,300	563,600	574,600	591,800	610,100	622,600

Yield (lbs)

Province.	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Assam	151,904,800	162,468,000	164,194,300	166,456,900	174,851,200	175,095,100	179,053,000	198,798,300	199,722,000	208,227,100
Bengal	53,570,800	60,688,200	60,216,600	59,971,600	60,920,700	64,674,200	64,653,900	70,524,200	80,108,700	75,373,200
Travancore	10,147,600	11,186,300	12,749,400	12,593,800	13,353,700	14,323,100	14,714,500	16,059,600	15,155,600	16,010,200
Madras	1,762,700	3,094,500	3,470,600	4,436,400	5,325,700	5,645,200	5,795,400	7,555,800	7,089,000	8,607,600
United Provinces	2,474,700	2,290,200	2,294,600	2,009,900	2,206,600	2,045,300	2,534,700	2,656,800	2,579,100	2,379,200
Punjab	1,432,300	1,237,700	1,237,500	1,437,500	1,413,700	1,418,900	1,489,200	1,931,000	2,129,800	1,941,300
Bihar and Orissa (*a*)	...	...	...	...	...	...	285,500	269,100	311,600	282,400
Burma	107,300	112,600	129,600	118,400	64,800	67,600	76,500	83,300	153,800	155,200
TOTAL	221,400,200	241,077,500	244,292,600	247,024,500	258,136,400	263,269,400	268,602,700	297,878,100	307,249,600	312,976,200

(*a*) Figures for years down to 1910 are included under Bengal

No. 6.—AREA AND YIELD OF COTTON IN EACH PROVINCE

Area (acres)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bombay (including Native States) (*a*)	6,665,000	7,383,000	7,101,000	6,241,000	6,469,000	7,334,000	5,786,000	6,826,000	7,323,000	7,543,000
Central Provinces and Berar	4,849,000	4,678,000	4,432,000	4,176,000	4,167,000	4,487,000	4,648,000	4,493,000	4,754,000	4,709,000
Hyderabad State	2,537,000	3,480,000	3,100,000	2,902,000	3,401,000	3,562,000	3,234,000	2,888,000	3,653,000	3,605,000
Madras (*b*)	1,597,000	1,703,000	1,855,000	1,576,000	1,569,000	1,873,000	2,878,000	2,414,000	2,725,000	2,383,000
Punjab (including Native States)	2,020,000	1,413,000	1,474,000	1,562,000	1,436,000	1,385,000	1,582,000	1,575,000	2,053,000	1,855,000
United Provinces (*c*)	1,372,000	1,489,000	1,461,000	1,392,000	1,241,000	1,347,000	921,000	1,158,000	1,586,000	1,545,000
Central India States	979,000	1,132,000	993,000	978,000	1,068,000	1,349,000	1,400,000	1,314,000	1,426,000	1,520,000
Rajputana States	291,000	428,000	438,000	389,000	464,000	465,000	263,000	393,000	470,000	420,000
Sind (including Native States)	283,000	250,000	259,000	259,000	214,000	279,000	346,000	296,000	341,000	351,000
Burma	183,000	187,000	195,000	204,000	198,000	167,000	186,000	233,000	290,000	282,000
Mysore	76,000	89,000	84,000	65,000	81,000	101,000	101,000	154,000	93,000	109,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	88,000	92,000	73,000	72,000
North-West Frontier Province (*e*)	59,000	61,000	48,000	54,000	32,000	33,000	56,000	56,000	59,000	60,000
Bengal (*f*)	132,000	151,000	149,000	161,000	166,000	169,000	63,000	51,000	87,000	92,000
Ajmer-Merwara	29,000	40,000	41,000	40,000	39,000	45,000	27,000	50,000	57,000	54,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	36,000	35,000	33,000	34,000
TOTAL	21,072,000	22,484,000	21,630,000	19,999,000	20,545,000	22,596,000	21,615,000	22,028,000	25,023,000	24,634,000

Yield (bales of 400 lbs each)

Province.	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bombay (including Native States) (*a*)	1,198,000	1,762,000	1,039,000	1,282,000	1,661,000	1,450,000	695,000	1,520,000	1,614,000	1,724,000
Central Provinces and Berar	818,000	881,000	595,000	766,000	1,070,000	629,000	913,000	910,000	961,000	1,097,000
Hyderabad State	303,000	449,000	293,000	307,000	461,000	293,000	300,000	300,000	400,000	400,000
Madras (*b*)	145,000	157,000	198,000	162,000	180,000	235,000	335,000	471,000	308,000	323,000
Punjab (including Native States)	192,000	357,000	356,000	324,000	396,000	306,000	241,000	373,000	612,000	474,000
United Provinces (*c*)	394,000	639,000	268,000	426,000	384,000	348,000	251,000	428,000	484,000	482,000
Central India States	130,000	222,000	55,000	144,000	221,000	237,000	228,000	206,000	273,000	292,000
Rajputana States	61,000	201,000	91,000	80,000	148,000	143,000	73,000	125,000	132,000	168,000
Sind (including Native States)	84,000	155,000	135,000	101,000	104,000	97,000	124,000	123,000	135,000	121,000
Burma	35,000	36,000	29,000	41,000	32,000	28,000	32,000	46,000	54,000	48,000
Mysore	5,000	10,000	6,000	3,000	6,000	10,000	17,000	19,000	11,000	13,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	19,000	19,000	17,000	16,000
North West Frontier Province (*e*)	13,000	13,000	9,000	12,000	7,000	8,000	12,000	13,000	14,000	13,000
Bengal (*f*)	33,000	33,000	38,000	35,000	35,000	49,000	25,000	21,000	24,000	35,000
Ajmer-Merwara	5,000	19,000	10,000	9,000	13,000	20,000	12,000	26,000	15,000	15,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	11,000	10,000	12,000	12,000
TOTAL	3,416,000	4,934,000	3,122,000	3,692,000	4,718,000	3,853,000	3,288,000	4,610,000	5,066,000	5,233,000
Net Exports and Consumption (*g*)	4,168,451	4,854,579	3,782,401	4,200,150	4,928,000	4,303,000	3,985,000	4,483,000	5,913,000	4,889,000

(*a*) Includes the State of Baroda

(*b*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and *whole inam* villages and Native States have also been included

(*c*) Includes the Native State of Rampur

(*d*) Included under Bengal

(*e*) Includes the Tochi and Kurram Agencies from 1913-14

(*f*) Includes Bihar and Orissa and Assam down to 1910-11 and the Hill Tippera State from 1906-07

(*g*) The exports as well as the mill consumption are for the year ending the 30th September up to 1910-11; from 1911-12 they are for the year ending the 31st August. No reliable information exists as to the annual consumption outside the mills, but in 1911 it was settled in consultation with the Bombay Cotton Trade Association to adopt the conventional estimate of 450,000 bales. This figure has been included in the figure for each year shown against this item up to 1913-14. The consumption for 1914-15 is estimated at 1,000,000 bales by the Association

Note.—Figures for 1914-15 are subject to revision

No. 7.—AREA AND YIELD OF JUTE IN EACH PROVINCE

Area (acres)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Bengal (*a*)	3,434,000	3,846,500	2,766,300	2,773,100	2,841,600	2,737,600	2,536,900	2,456,600	2,872,600	2,086,300
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	258,100	298,300	318,400	330,100	188,100
Assam	48,900	95,800	68,400	83,500	82,200	90,700	95,700	97,000	111,600	75,400
Cooch Bihar State	...	32,000	22,000	20,000	14,000	20,000	39,600	39,000	44,400	27,500
TOTAL	3,482,900	3,974,300	2,856,700	2,876,600	2,937,800	3,106,400	2,970,500	2,911,000	3,358,700	2,377,300

Yield (bales of 400 lbs each)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Bengal (*a*)	9,020,500	9,512,100	6,132,700	6,992,500	7,735,300	7,247,600	8,698,300	7,939,900	9,308,000	6,506,100
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	705,500	792,900	602,900	693,200	609,600
Assam	106,900	224,100	138,500	180,500	177,800	239,600	226,800	228,300	307,500	157,500
Cooch Bihar State	79,000	81,600	39,600	33,600	18,900	42,000	124,800	122,800	135,200	72,300
TOTAL (*c*)	9,206,400	9,817,800	6,310,800	7,206,600	7,932,000	8,234,700	9,842,800	8,893,900	10,443,900	7,345,500

(*a*) Includes Bihar and Orissa down to 1910
(*b*) Included under Bengal
(*c*) Excluding the figures for Nepal, which are stated below so far as information is available

	Bales		Bales		Bales
1906	61,000	1909	81,000	1913	88,000
1907	83,000	1910	79,000	1914	88,000
1908	88,000	1911 and 1912	No information.	1915	83,000

No. 8.—AREA AND YIELD OF LINSEED IN EACH PROVINCE

Area (acres)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Central Provinces and Berar	912,100	1,158,200	547,600	954,700	926,200	1,080,400	1,858,800	1,509,000	952,100	1,222,600
United Provinces (*a*)	210,900	315,000	57,500	194,700	308,400	472,800	848,800	493,500	240,600	266,300
	567,000	*633,000*	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	510,300	567,800	528,000	652,900	623,800
Hyderabad State	604,500	664,300	484,800	555,400	548,900	631,300	603,500	512,400	412,600	234,000
Bengal (*c*)	829,500	805,600	589,400	634,600	673,400	196,900	206,800	199,800	193,700	188,700
Bombay (including Native States) (*d*)	154,800	167,100	151,100	158,600	134,200	194,700	205,300	171,900	173,100	125,500
Punjab	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	43,300	39,000	48,000
Total (*a*)	2,711,800	3,110,200	1,830,400	2,498,000	2,591,100	3,086,400	4,291,000	3,457,900	2,664,000	2,708,900
	567,000	*633,000*	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*

Yield (tons)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Central Provinces and Berar	77,300	106,200	23,500	90,900	90,300	124,500	139,000	141,800	70,700	78,700
United Provinces (*a*)	32,800	156,000	6,500	30,400	62,000	102,900	159,700	95,500	38,800	47,600
	88,000	*113,000*	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	112,500	125,200	104,700	149,700	101,700
Hyderabad State	24,700	28,600	13,600	17,200	18,400	30,400	26,800	17,300	16,500	8,900
Bengal (*c*)	127,800	114,600	85,900	72,500	124,200	30,700	39,200	37,400	34,200	26,600
Bombay (including Native States) (*d*)	2,600	6,800	4,000	8,700	12,900	28,300	15,000	17,400	14,000	16,700
Punjab	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	3,300	4,600
Total (*a*)	265,200	312,200	133,500	219,700	307,800	429,300	504,900	414,100	327,200	284,800
	88,000	*113,000*	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa down to 1909-10
(*d*) Includes the State of Baroda also
(*e*) Not available

Note.—Figures for 1914-15 are subject to revision

No. 9.—AREA AND YIELD OF RAPE AND MUSTARD IN EACH PROVINCE

Area (acres)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces (*a*)	154,700	153,400	96,800	136,800	176,900	146,200	176,200	145,000	150,400	190,300
	2,026,000	*2,210,000*	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*
Punjab (*b*) . .	1,614,200	1,402,400	842,800	1,158,900	1,329,900	1,089,000	1,414,100	887,800	1,002,900	1,042,200
Bengal (*c*) . .	1,861,700	2,026,500	1,889,100	1,854,900	2,278,300	1,370,700	1,317,500	1,325,400	1,312,600	1,315,600
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	765,700	780,100	723,300	751,900	681,300
Assam . . .	164,400	222,000	261,000	284,300	320,100	318,100	258,100	295,000	299,200	309,500
North-West Frontier Province (*e*) .	85,500	218,800	121,000	226,900	91,700	85,100	94,200	75,700	141,300	113,900
Bombay (including Native States) .	43,800	61,400	46,900	80,800	86,900	84,600	17,600	75,700	83,500	85,900
Sind (including Native States) .	64,200	87,900	63,100	120,400	69,700	76,200	54,000	43,800	365,000	428,500
Hyderabad State .	14,300	10,700	9,500	12,500	8,100	9,300	6,500	11,100	5,600	7,000
TOTAL (*a*) .	4,002,800	4,183,100	3,330,200	3,875,500	4,361,600	3,944,900	4,113,300	3,582,800	4,112,400	4,174,200
	2,026,000	*2,210,000*	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*

Yield (tons)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces (*a*)	30,000	30,000	11,300	26,900	36,000	34,400	37,200	33,900	23,000	43,400
	398,000	*424,000*	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*
Punjab (*b*) . .	183,000	172,300	110,000	183,900	226,900	155,100	196,600	156,600	165,000	165,400
Bengal (*c*) . .	287,300	337,000	275,600	231,900	440,100	238,600	243,900	265,800	266,200	232,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	168,800	171,900	143,500	165,700	97,600
Assam . . .	30,200	43,600	42,700	46,400	60,500	56,000	47,600	58,400	61,300	59,200
North-West Frontier Province (*e*) .	12,200	19,400	12,300	28,600	7,900	9,500	12,100	7,200	15,900	13,100
Bombay (including Native States) .	9,300	14,300	12,500	23,200	22,600	15,400	2,600	20,000	21,300	21,000
Sind (including Native States) .	11,500	12,400	6,400	23,400	10,100	11,100	4,700	4,600	42,000	46,300
Hyderabad State .	100	100	200	200	100	200	100	200	100	200
TOTAL (*a*) .	563,600	629,100	471,000	564,500	804,200	689,100	716,700	690,200	760,500	678,200
	398,000	*424,000*	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) Figures for years prior to 1913-14 excluded the districts of Simla, Jalandhar, Kangra, and Gurdaspur

(*c*) Includes Bihar and Orissa down to 1909-10

(*d*) Included under Bengal

(*e*) Figures for years prior to 1906-07 excluded the Kohat District

Note.—Figures for 1914-15 are subject to revision

No. 10.—AREA AND YIELD OF SESAMUM (*Til or Jinjili*) IN EACH PROVINCE

Area (acres)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces (*a*)	278,200	309,200	329,800	322,000	481,300	438,900	375,000	317,200	378,400	372,400
	700,000	*775,000*	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*
Bombay (including Native States) (*b*)	908,100	1,049,500	992,700	979,500	1,037,400	994,800	548,900	793,300	851,200	970,400
Central Provinces and Berar	792,900	807,900	977,600	790,000	942,700	895,300	886,700	778,000	865,700	878,500
Madras (*c*)	723,300	556,900	647,000	685,900	718,900	573,200	887,200	823,700	809,300	804,900
Hyderabad State	465,600	493,700	510,600	511,900	597,300	677,700	663,900	649,100	612,000	598,900
Bengal (*d*)	515,000	496,300	419,400	453,400	494,800	489,100	271,800	264,800	241,000	281,500
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	214,600	223,700	219,700	216,500
Punjab (*e*)	146,300	95,500	84,100	164,700	175,600	148,700	92,100	156,800	144,100	220,300
Sind (including Native States)	84,400	55,900	55,600	80,500	67,000	88,300	58,200	72,300	91,300	85,400
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	11,900	34,600
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	9,700	10,600	(*h*) 1,400	...
TOTAL (*a*)	3,913,800	3,864,900	4,016,800	3,987,900	4,515,000	4,306,000	4,008,100	4,089,500	4,226,000	4,463,400
	700,000	*775,000*	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*

Yield (tons)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
United Provinces (*a*)	17,500	36,200	10,000	34,000	48,700	45,400	29,000	34,000	18,000	31,200
	45,000	*90,000*	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*
Bombay (including Native States) (*b*)	105,100	186,000	61,400	99,500	132,400	109,400	31,700	96,300	89,700	165,500
Central Provinces and Berar	66,900	70,400	55,400	59,900	91,900	76,400	72,300	60,900	69,400	96,600
Madras (*c*)	55,000	45,800	53,100	57,200	59,700	49,300	78,200	65,500	72,100	82,800
Hyderabad State	18,400	27,300	20,600	18,700	24,500	34,400	25,400	32,500	25,100	26,900
Bengal (*d*)	61,700	72,200	46,300	59,000	88,600	79,400	41,500	35,100	29,000	32,100
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	33,500	25,000	31,400	27,400
Punjab (*e*)	13,900	8,800	4,700	23,700	18,500	14,900	9,900	16,000	15,800	24,400
Sind (including Native States)	6,300	4,300	4,200	12,300	6,500	12,600	4,800	6,900	10,700	5,100
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	100	1,200
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	1,300	1,800	(*h*) 200	...
TOTAL (*a*)	344,800	451,000	255,700	364,300	470,800	421,800	327,600	374,000	361,500	493,200
	45,000	*90,000*	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crops of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Includes the State of Baroda
(*c*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included
(*d*) Includes Bihar and Orissa down to 1910-11 and Assam for 1910-11
(*e*) Figures for years prior to 1913-14 exclude unimportant districts
(*f*) Included under Bengal
(*g*) Not available
(*h*) Early crop only

Note.—Figures for 1914-15 are subject to revision

No. 11.—AREA AND YIELD OF GROUNDNUT IN EACH PROVINCE

Area (acres)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Madras (*a*) . .	393,100	511,000	601,800	718,700	740,100	667,300	806,000	924,200	1,605,200	1,485,200
Bombay (including Native States) .	92,800	111,000	129,800	133,700	162,300	185,800	269,300	242,700	254,100	243,100
Burma (*c*) . .	(*b*)	(*b*)	137,000	258,600	146,300	98,800	138,800	199,500	246,600	267,000
TOTAL .	485,900	622,000	868,600	1,111,000	1,048,700	951,900	1,214,100	1,366,400	2,105,900	1,995,300

Yield (tons) of nuts in shell

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Madras (*a*) . .	174,500	189,000	202,300	246,500	221,900	254,200	306,000	341,100	411,300	580,500
Bombay (including Native States)	36,700	84,700	82,500	129,500	172,700	207,100	248,300	239,500	249,500	246,700
Burma (*c*) . .	(*b*)	(*b*)	67,700	119,700	64,700	41,900	51,400	89,300	88,000	102,000
TOTAL .	211,200	273,700	352,500	495,700	459,300	503,200	605,700	669,900	748,800	929,200

(*a*) The estimates for Madras down to 1906-07 relate only to *raiyatwari* villages; but since that year estimates for *zamindari* and whole *inam* villages have also been included
(*b*) No information
(*c*) The figures down to 1911-12 relate to the principal groundnut-growing districts. From 1912-13 estimates for other districts also have been included

Note.—The figures for 1914-15 are subject to revision

No. 12.—AREA AND YIELD OF INDIGO IN EACH PROVINCE

Area (acres)

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bihar and Orissa (*a*)	161,500	137,800	146,800	135,300	107,400	117,000	109,600	90,100	63,100	38,500
Madras . .	113,900	180,700	141,900	81,800	96,400	82,800	90,300	61,500	55,300	54,500
Punjab (*b*) . .	67,500	62,300	57,900	36,200	43,400	45,400	36,600	37,300	22,400	20,900
United Provinces(*c*)	40,700	40,400	47,300	30,600	41,900	31,200	29,400	26,900	24,400	12,300
Bombay and Sind(*d*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	3,300	6,200	4,200
Bengal . .	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	1,000	1,000	1,200	1,300
TOTAL .	383,600	421,200	393,900	283,900	289,100	276,400	266,900	220,100	172,600	131,700

Yield (cwts) of dye

Province	1905-06	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
Bihar and Orissa (*a*)	15,800	17,300	17,700	17,000	11,400	13,900	17,800	14,700	7,000	5,500
Madras . .	17,300	32,300	20,000	12,400	14,400	20,100	21,200	14,800	11,500	13,600
Punjab (*b*) . .	10,800	11,000	9,000	5,600	8,300	8,500	5,600	6,000	3,500	3,100
United Provinces (*c*)	4,300	5,100	5,600	3,800	5,200	3,500	3,000	3,500	3,000	1,500
Bombay and Sind (*d*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	1,700	1,000
Bengal . .	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	100	100	100	200
TOTAL .	48,200	65,700	52,300	38,800	39,300	46,000	47,700	39,100	26,800	24,900

(*a*) Includes Bengal down to 1910-11
(*b*) Figures for years prior to 1913-14 exclude unimportant districts
(*c*) In estimating the yield in the United Provinces it is assumed that one-tenth of the whole area is annually set aside for seed
(*d*) Includes Native States from 1913-14
(*e*) No information
(*f*) Included under Bihar and Orissa

Note.—The figures for 1914-15 are subject to revision

No. 13.—YIELD (lbs) PER ACRE OF CROPS (tabulated in tables 1 to 12) IN EACH PROVINCE

Province	Rice (a)			Wheat			Sugarcane (b)			Tea			Cotton (c)		
	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15
	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb
United Provinces	657	467	734	891	777	933	2,045	1,582	2,051	341	322	297	148	122	125
Madras	908	878	1,037	...	...	..	4,636	4,019	4,636	310	270	329	78	45	54
Bihar and Orissa	826	1,121	826	933	973	638	2,464	2,464	2,341	117	142	128	83	93	89
Bombay	1,131	1,090	1,240	701	539	596	5,098	5,588	5,986	...	...	...	89	88	91
Sind	834	649	902	938	901	1,069	...	...	...	...	...	...	166	158	138
Bengal	907	837	702	782	793	535	2,658	2,512	2,395	469	514	474	165	110	152
Punjab	...	...	...	719	745	785	1,674	1,684	1,625	208	229	209	95	119	102
C. P. and Berar	...	371	729	636	455	521	...	2,383	2,621	...	...	...	81	81	93
Burma	1,012	899	819	...	...	..	...	...	...	49	51	52	79	74	68
Assam	1,021	782	812	...	...	...	1,941	1,898	1,809	550	543	554	114	145	141
North-West Frontier Province	...	...	...	497	585	573	2,509	2,480	2,559	...	...	...	93	95	87
Ajmer-Merwara	...	...	...	...	896	589	...	...	...	...	...	...	208	105	111
Coorg	1,430	956	1,438	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	731	412	464	...	...	...	...	...	...	63	77	77
Rajputana	...	...	...	539	439	543	...	...	...	...	...	...	127	112	160
Hyderabad	...	...	...	126	137	127	..	...	...	...	...	...	42	44	44
Mysore	...	...	...	560	747	560	...	...	...	...	...	...	49	47	48
Travancore	...	...	...	...	...	...	...	...	...	471	405	413	...	...	...
AVERAGE	891	855	822	735	657	714	2,290	2,016	2,290	503	504	503	84	81	85

Province	Jute			Linseed			Sesamum			Rape and Mustard			Groundnut (d)			Indigo		
	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15	1912-13	1913-14	1914-15
	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb
United Provinces	...	...	...	431	361	398	247	109	190	520	340	506	...	...	...	15	14	14
Madras	...	...	...	...	...	...	178	200	230	...	...	...	827	574	876	27	23	28
Bihar and Orissa	1,063	757	840	444	514	365	250	320	283	444	494	321	...	...	...	18	12	16
Bombay	...	...	...	227	181	298	272	236	332	592	571	548	2,210	2,199	2,273	...	31	27
Sind	...	...	...	...	...	...	214	263	134	235	258	242	...	...	...			
Bengal	1,370	1,292	1,295	419	395	316	297	270	255	449	454	395	...	...	...	11	9	17
Punjab	...	...	...	...	190	215	229	246	248	395	369	355	...	...	...	18	17	17
C. P. and Berar	...	...	...	210	166	144	175	180	246	...	...	...	...	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	...	...	...	...	1,003	799	856	...	...	...
Assam	948	941	1,102	...	...	...	380	320	...	443	459	428	...	...	...	...	...	...
North-West Frontier Province	...	...	...	...	...	...	...	...	...	213	252	258	...	...	...	...	...	...
Ajmer-Merwara	...	...	...	...	...	...	...	19	78	...	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajputana	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad	...	...	...	76	90	85	112	92	101	40	40	64	...	...	...	...	...	...
Mysore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE	1,325	1,222	1,244	294	285	266	213	178	227	467	389	415	1,098	796	1,043	20	17	21

(a) Cleaned rice (b) Raw sugar or gúr (c) Cleaned, *i.e.*, ginned cotton (d) Nuts in shell

No. 14.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE

Area (acres)

Province	Barley				Jawar				Bajra			
	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15
United Provinces	5,163,000	4,591,000	4,376,000	4,576,000	1,633,000	2,169,000	2,063,000	2,413,000	2,880,000	2,618,000	2,188,000	2,770,000
Madras	3,000	3,000	3,000	3,000	5,166,000	5,220,000	5,790,000	5,102,000	3,384,000	3,606,000	3,273,000	3,482,000
Bihar and Orissa	1,340,000	1,261,000	1,305,000	1,287,000	95,000	94,000	129,000	107,000	67,000	74,000	75,000	73,000
Bombay	36,000	28,000	23,000	25,000	5,878,000	6,850,000	6,606,000	6,504,000	4,362,000	5,158,000	4,906,000	5,119,000
Sind	19,000	20,000	28,000	31,000	389,000	602,000	689,000	636,000	415,000	1,141,000	1,110,000	1,090,000
Bengal	95,000	95,000	94,000	95,000	2,000	3,000	2,000	2,000	6,000	7,000	6,000	6,000
Punjab	1,339,000	1,007,000	970,000	1,308,000	554,000	1,212,000	1,248,000	1,276,000	1,155,000	2,677,000	2,829,000	2,738,000
C. P. and Berar	(*b*)23,000	(*b*)16,000	(*b*)8,000	(*b*)11,000	4,048,000	3,991,000	3,919,000	4,299,000	117,000	154,000	146,000	146,000
Burma	...	...	...	...	472,000	492,000	531,000	479,000	247,000	240,000	225,000	172,000
Assam	1,000	1,000	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province.	296,000	214,000	291,000	422,000	53,000	95,000	103,000	120,000	76,000	205,000	193,000	239,000
TOTAL	8,315,000	7,236,000	7,098,000	7,758,000	18,290,000	20,728,000	21,080,000	20,938,000	12,709,000	15,880,000	14,951,000	15,835,000

Yield (tons)

Province	Barley				Jawar				Bajra			
	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15
United Provinces	(*a*)	(*a*)	1,679,000	2,048,000	355,000	598,000	227,000	630,000	601,000	611,000	269,000	612,000
Madras	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	943,000	1,082,000	963,000	(*a*)	551,000	535,000	597,000
Bihar and Orissa	579,000	523,000	557,000	426,000	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Bombay	9,000	10,000	7,000	9,000	910,000	1,418,000	1,375,000	1,683,000	340,000	560,000	655,000	734,000
Sind	5,000	7,000	10,000	11,000	105,000	196,000	202,000	221,000	106,000	253,000	181,000	168,000
Bengal	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Punjab	382,000	280,000	288,000	377,000	68,000	163,000	119,000	118,000	97,000	315,000	302,000	346,000
C. P. and Berar	(*a*)	(*a*)	(*a*)	(*a*)	986,000	980,000	918,000	1,274,000	(*a*)	(*a*)	(*a*)	(*a*)
Burma	...	...	...	...	35,000	55,000	68,000	48,000	14,000	27,000	33,000	13,000
Assam	(*a*)	(*a*)	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province.	(*a*)	58,000	140,000	190,000	(*a*)	15,000	16,000	19,000	(*a*)	33,000	37,000	48,000
TOTAL (*c*)	975,000	878,000	2,681,000	3,061,000	2,459,000	4,368,000	4,007,000	4,956,000	1,158,000	2,350,000	2,012,000	2,518,000

(*a*)Not available (*b*) Taken from Agricultural Statistics (*c*) Incomplete

N. B.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports

[Continued on next page

No. 14.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE—*contd.*

Area (acres)

Province	Maize				Gram			
	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15
United Provinces	1,791,000	2,205,000	2,136,000	2,376,000	6,873,000	5,507,000	3,037,000	5,343,000
Madras	118,000	134,000	124,000	154,000	135,000	138,000	166,000	134,000
Bihar and Orissa	1,661,000	1,699,000	1,714,000	1,492,000	1,052,000	915,000	1,079,000	1,205,000
Bombay	163,000	162,000	159,000	156,000	372,000	475,000	453,000	486,000
Sind	2,000	2,000	2,000	1,000	76,000	75,000	98,000	111,000
Bengal	95,000	97,000	92,000	95,000	177,000	184,000	198,000	182,000
Punjab	955,000	1,098,000	1,082,000	1,047,000	4,100,000	3,401,000	2,849,000	5,193,000
C. P. and Berar	(*d*) 144,000	(*d*) 150,000	(*d*) 151,000	(*d*) 156,000	(*c*) 818,000	(*c*) 808,000	(*c*)829,000	(*c*)852,000
Burma	165,000	172,000	170,000	158,000	40,000	34,000	42,000	48,000
Assam	19,000	19,000	18,000	19,000	1,000	1,000	...	...
North-West Frontier Province	410,000	419,000	431,000	419,000	174,000	169,000	199,000	203,000
TOTAL	5,523,000	6,157,000	6,079,000	6,073,000	13,818,000	11,707,000	8,950,000	13,757,000

Yield (tons)

Province	Maize				Gram			
	1911-12	1912-13	1913-14	1914-15	1911-12	1912-13	1913-14	1914-15
United Provinces	703,000	920,000	721,000	1,050,000	2,493,000	1,817,000	(*e*) 551,000	1,773,000
Madras	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	8,000	(*a*)	(*a*)
Bihar and Orissa	549,000	530,000	541,000	395,000	436,000	361,000	447,000	357,000
Bombay	27,000	54,000	60,000	72,000	39,000	84,000	61,000	86,000
Sind	1,000	1,000	1,000	1,000	11,000	10,000	9,000	11,000
Bengal	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Punjab	366,000	413,000	441,000	283,000	1,126,000	735,000	578,000	1,289,000
C. P. and Berar	(*a*)	(*a*)	(*a*)	(*a*)	244,000	280,000	190,000	247,000
Burma	63,000	75,000	68,000	51,000	7,000	(*a*)	(*a*)	(*a*)
Assam	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	...	...
North-West Frontier Province	184,000	188,000	228,000	203,000	(*a*)	29,000	36,000	34,000
TOTAL (*b*)	1,893,000	2,181,000	2,060,000	2,055,000	4,356,000	3,324,000	1,872,000	3,797,000

(*a*) Not available
(*b*) Incomplete
(*c*) Excludes gram sown with other crops
(*d*) Taken from Agricultural Statistics
(*e*) Crop poor owing to unfavourable season

N. B.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports

No. 15.—NORMAL AND ACTUAL RAINFALL (IN INCHES) IN EACH PROVINCE AND METEOROLOGICAL SUBDIVISION IN INDIA.

Provinces and Subdivisions	Normal rainfall	Actual rainfall								Variation of 1914 rainfall from normal	Percentage variation from normal
		1907	1908	1909	1910	1911	1912	1913	1914		
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Per cent
United Provinces—											
United Provinces, East	40·12	25·72	29·86	42·02	41·49	41·96	33·46	30·39	38·02	— 2·10	— 5
United Provinces, West	38·90	25·77	37·38	42·23	42·62	33·13	34·86	23·30	39·89	+ 0·99	+ 3
Madras—											
Malabar	127·37	156·60	131·24	138·00	121·78	114·42	151·14	111·61	134·04	+ 6·67	+ 5
Madras, South-East	34·94	47·38	30·64	36·15	36·35	32·24	34·81	35·89	37·93	+ 2·99	+ 9
Madras, Deccan	24·22	19·51	20·33	26·84	33·55	18·66	25·87	20·52	21·92	— 2·30	— 9
Madras Coast, North	39·34	35·64	36·35	38·28	49·63	36·25	40·11	36·91	43·02	+ 3·68	+ 9
Bihar and Orissa—											
Orissa	57·72	58·02	57·54	59·70	59·28	49·85	54·07	61·23	61·80	+ 4·08	+ 7
Chota Nagpur	53·40	56·60	47·69	55·07	47·88	54·53	44·81	63·24	43·11	—10·29	—19
Bihar	50·14	42·77	27·63	53·67	53·09	58·94	43·41	60·43	44·30	— 5·84	—12
Bombay—											
Gujarat	35·05	33·75	35·00	34·86	35·82	13·73	41·89	41·30	39·73	+ 4·68	+13
Konkan	113·15	112·19	109·13	111·40	99·82	81·50	110·90	103·99	137·20	+24·05	+21
Bombay, Deccan	32·18	31·07	26·78	28·65	34·87	21·27	31·37	28·02	39·38	+ 7·20	+22
Sind	6·63	7·90	12·18	6·28	9·00	1·03	5·12	18·79	6·10	— 0·53	— 8
Bengal—											
Eastern	75·33	75·19	66·31	96·66	94·76	100·85	79·76	88·96	69·39	— 5·94	— 8
Western		52·07	52·69	69·96	59 07	55·11					
Punjab—											
Punjab, East and North	23·66	21·38	32·41	31·85	26·37	21·63	22·30	22·71	31·89	+ 8·23	+35
Punjab, South-West	8·82	9·62	17·88	11·51	9·27	9·25	8·51	12·59	18·67	+ 9·85	+112
Central Provinces and Berar—											
Berar	31·23	30·32	35·07	31·23	40·59	23·78	25·93	33·93	40·75	+ 9·52	+30
Central Provinces, West	45·63	38·69	46·59	39·91	47·59	40·42	40·99	39·98	44·15	— 1·48	— 3
Central Provinces, East	52·90	48·39	59·93	50·39	56·46	55·11	54·89	47·72	54·55	+ 1·65	+ 3
Burma—											
Lower Burma	122·87	137·68	127·55	132·58	117·81	128·31	129·83	122·48	140·92	+18·05	+15
Upper Burma	41·99	33·89	44·08	47·21	48·49	43·30	43·67	43·47	49·54	+ 7·55	+18
Assam	98·14	96·81	89·01	89·26	105·20	117·14	101·28	105·89	87·03	—11·11	—11
North-West Frontier Province	16·24	18·51	27·61	18·65	22·95	20·00	15·78	14·66	30·30	+14·06	+87
Central India—											
Central India, West	34·31	26·41	32·64	34·08	37·85	25·80	32·71	30·22	32·94	— 1·37	— 4
Central India, East	45·45	33·97	51·08	39·74	41·41	44·84	37·33	31·16	39·22	— 6·23	—14
Rajputana—											
Rajputana, West	11·81	15·27	26·32	18·29	12·35	5·84	12·53	10·10	12·54	+ 0·73	+ 6
Rajputana, East	24·51	21·31	36·75	29·12	28·72	18·29	27·39	15·65	26·50	+ 1·99	+ 8
Hyderabad—											
Hyderabad, North	35·79	27·83	32·87	30·02	43·24	24·94	23·39	27·10	42·70	+ 6·91	+19
Hyderabad, South	29·72	27·39	34·15	28·02	31·35	21·11	25·05	19·76	38·71	+ 8·99	+30
Mysore	36·24	36·23	27·48	41·14	43·85	33·94	44·02	32·40	33·88	— 2·36	— 7

APPENDIX I

METHOD OF FRAMING ESTIMATES OF CROPS

There are three factors necessary for framing an estimate of outturn, namely, the area, the standard normal outturn per acre, and the fraction representing the relation of the crop reported on to the normal crop per acre.

As regards area, there exists in the villages of most provinces an agency capable of reporting the acreage of crops with great accuracy, wherever the fields have been mapped and surveyed. The tracts for which statistics are ordinarily not obtainable are yearly diminishing in extent; but owing to the absence of maps or the non-existence of trained village establishments they still represent a considerable aggregate area. These tracts consist chiefly of permanently settled estates, lands held on privileged tenure, and unsurveyed areas. For these tracts the acreage as well as the outturn cannot be more than a rough estimate. Such estimates of areas, once framed, are liable to become stereotyped and repeated year after year without regard to the influence of exceptional seasons or changes in the economic condition of the tracts. In order to prevent this, provision has been made for the annual revision of these area estimates by careful comparison with the conditions prevailing in those adjoining areas of a similar character for which accurate information is available, and by means of such special enquiries as may be possible.

In dealing with the calculation of the areas under crops, two other matters demand consideration, namely, (1) whether the area returned should be the area sown or that successfully cropped, and (2) whether, when the forecast crop is sown mixed with other crops, it is preferable that the total area covered by the mixed crops should be exhibited, or that such area only should be shown as is estimated to represent the acreage covered by the forecast crop only. As regards (1) the general rule is that the returns should exhibit the areas actually sown whether the crop comes to maturity or not, the principle underlying this rule being that the failure of crop should affect not its area, but its outturn. An exception to this rule is, however, made when fields, owing to the failure of the first sowings, have been devoted to other crops. In this case the area first sown with the forecast crop may be omitted. As to (2) the areas covered by the several crops in a mixed field are estimated in various ways in the different provinces, and the estimates are based on formulæ prescribed by the provincial authorities in individual cases, as it has not been found practicable to prescribe one uniform method of calculation. For purposes of the forecasts the area to be returned must be the area covered by the forecast crop, exclusive of the area covered by the other crops with which it is mixed.

Next with regard to the standard normal outturn. A normal crop may be defined as "that crop which past experience has shown to be the most generally recurring crop in a series of years; the typical crop of the local area; the crop which the cultivator has a right (as it were) to expect, and with which he is (or should be) content, while if he gets more he has reason to rejoice, and if less he has reason to complain." Briefly, it is stated to be the average yield on average soil in a year of average character. This normal or average yield will not necessarily correspond with the average of a series of years' figures, which is an arithmetical average. The Agricultural Department in each province maintains a statement of the normal or average yield per acre of land of average quality (under the two major heads of irrigated and unirrigated land) for the several crops in each district. In order to test the accuracy of these standards of normal or average yield and to revise them, if necessary, a system of crop-cutting experiments is in force in all the provinces. Under this system plots of land of average quality are selected and the crops grown on them are cut and weighed in the presence of responsible officers of the District staff or of the Provincial Agricultural Department. These experiments have to be carried out every year in respect of all the principal crops, and in accordance with rules specially framed by the several provincial authorities. The results of the experiments are reported to the head of the provincial Agricultural Department, who on a careful scrutiny of all the reports received by him, and after such further investigations as he may deem necessary, revises or verifies the standards previously adopted for the districts or the province. This revision is ordinarily made once in five years.

The third factor—the fraction representing the relation of the crop reported on to the normal crop per acre—is what is known as the "anna estimate" or the "percentage estimate." In many parts of India the cultivators estimate the crop outturn in annas or sixteenths, as there are sixteen annas in a rupee. They take a certain number of annas to represent the normal outturn, and estimate the outturn of the year of report as so many annas higher or lower than that normal. But in some tracts sixteen annas express a bumper crop, while in others the same term expresses a normal crop, and the number of annas taken to represent a normal outturn varies between 12 and 16. Consequently the anna estimate of one tract is not always amenable to comparison or combination with that of another tract. The percentage estimate is the American system under which 100 is taken to denote a normal crop and the estimated outturn of the year of report is stated as a percentage of that crop. In 1897 a question arose as to whether the anna notation or the American notation should be used in making crop estimates, and it was strongly urged upon the Government of India that as the cultivators and village officers entrusted with the duty of collecting data for crop reports were mostly accustomed to the Indian system, *i.e.*, the anna notation, the adoption of any other system

would tend to confuse the estimate. Local Governments and Administrations were permitted to adopt such scale of notation as might be suited to local conditions, the object being to secure that the returns should be in terms of a normal crop. But since the anna standard thus adopted would not possess any fixed or uniform value, it was laid down that in published forecasts the anna notation should not be used, the American notation being used in its stead, *i.e.*, 100 being taken to represent a normal crop and the estimated outturn being stated as a percentage of that crop, and the conversion of the anna estimate into the percentage estimate being made either by the district officer or by the provincial authorities.

When these three factors have been determined, they are multiplied into each other to arrive at the required quantitative estimate of outturn. Thus, if the area be 60,000 acres, the standard of normal outturn 500 lbs, and the percentage estimate 80, the required quantitative estimate would be $60{,}000 \times 500 \times \frac{80}{100} = 24{,}000{,}000$ lbs.

APPENDIX II

METHODS OF COLLECTING THE STATISTICS PROVINCE BY PROVINCE

United Provinces. (Total cultivated area 34,946,000 acres.)

The estimates prepared by the United Provinces include all the districts of the province, except Almora and Garhwal, for which the required particulars are not available as no regular village papers are kept up by patwaris (village accountants) in these two districts. The area is taken from the crop statements based on field-to-field inspections, which are compiled by patwaris and checked by higher revenue officers. The estimates of the standard yield are based on the results ascertained from crop-cutting experiments conducted annually in selected districts. The standards, which are separate for irrigated and unirrigated crops, are revised every five years on a consideration of the results of crop-cutting experiments, and are applied to the condition of the crops reported by district officers and selected land-holders whose number exceeds six hundred.

Madras. (Total cultivated area 33,952,000 acres.)

In the Madras Presidency, the estimates relate to all districts in which the respective crops are grown. Approximately two-thirds of the cultivated land in the Presidency is Government or *raiyatwari* land, and has been carefully surveyed. All the village officers therein are appointed and controlled by Government officials. In the ordinary course of his work the village accountant sends every month to the Revenue Inspector (the officer in charge of a group of villages varying in number) a detailed statement of the sowings in his village. For those crops for which forecasts are prepared, the Revenue Inspector, who is himself a touring officer, reports to his Tahsildar, the area in his range under that crop, with his estimates of the average yield expressed in so many annas of the normal crop, when outturns are required. The Tahsildar consolidates all these figures and reports the total direct to the Director of Agriculture with, in the case of outturn, his estimated yield (also expressed in annas of the normal). The remaining third of the Presidency is *zamindari* (consisting of large proprietary estates), of which only a part has been accurately surveyed, and for which somewhat similar returns are prepared and dealt with accordingly. In other cases the Tahsildar or Deputy Tahsildar estimates the area and yield as well as he can from his own knowledge, and from reports of the estate officials. The figures for these zamindari areas are included but shown separately in the reports sent by the Tahsildars to the Provincial Director of Agriculture. The Native States of Pudukkottai and Banganapalle send similar reports direct to the Director for cotton only. No other Native State in the Presidency prepares any crop forecast. Thus for each forecast return 232 separate reports are received in the Director's office, where they are scrutinized and tabulated. More accurate figures of areas cultivated are obtainable at the end of the year after all the village accounts have been checked. These figures are published later in the provincial Season and Crop Report. The figures reported by Tahsildars in their final forecasts—particularly those from zamindari areas—are checked by a comparison with the forecast reports and the season and crop reports of previous years and the returns from neighbouring Government areas, and thus an attempt is made to rectify obviously inaccurate reporting. Standard rates of outturn have been determined for each crop on a consideration of the latest crop-cutting experiments and of the results on the Government farms. The Director checks the rate of yield reported by Tahsildars by estimates received from non-officials interested in a particular crop.

Bihar and Orissa. (Total cultivated area 26,875,000 acres.)

The estimates for Bihar and Orissa relate to all the districts of the province where the respective crops are grown. Survey and settlement operations have been completed in all districts except five, and in these districts the settlement figures serve as a check on the estimates of acreage based on the information furnished by the police. In the absence of any Revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. In the district of Sambalpur, the acreages under crops are revised annually by the Land Records staff by field-to-field inspection. The system of making crop-cutting tests, as in other provinces over a series of areas and seasons for the ascertainment of standards of yield has been in force in the districts of this province for some twenty-one years, but sufficiently trustworthy figures of yield have not yet been obtained from these tests to enable Government to accept them as standards. The estimates, therefore, of yield given in the forecasts are based on standards adopted provisionally by the provincial Department of Agriculture on the basis of information obtained from other sources.

Bombay and Sind (Total cultivated area 28,241,000 acres.)

The estimates for the Bombay Presidency include all British districts and Native States where the respective crops are grown to any extent. In the British districts of the Presidency proper the area under different crops is ascertained in the first instance by village officers and recorded in village returns, which are checked by circle inspectors and other revenue officers, and compiled by the former for their circle and then for the taluka. The taluka figures are totalled up for each district in the office of the Director of Agriculture of the province. For Sind this work is done by local officers, and the Director receives district-by-district figures. The information received is for villages for which regular statistics are available, the proportion of reporting area being 91·4 per cent in the Presidency proper and 99·6 per cent in Sind. From 1909-10, however, estimates for the non-reporting areas have been made so far as possible and included in the table. In the case of Native States the acreage is estimated on the best local data available. The approximate numerical strength of the reporting agency is 188 in the Presidency proper, 60 in Sind, and 33 in the Native States. No standard of yield has yet been fixed. Local estimates of crop condition are converted to quantitative

N.B.—The cultivated area shown in the margin represents the average area actually sown with all crops in each province.

figures on the basis of a formula showing the average yield of crops, which has been adopted provisionally. This formula is now being revised, the revision being based on the ascertainment of actual yield in different parts of the Presidency by careful local enquiry by officers of the provincial Agricultural Department, who are tabulating the results and comparing them for the purpose. The unit of area in the formula is the district, and dry and irrigated crops are separately dealt with. Each year's estimate of the condition of crops is prepared by the mamlatdars (or mahalkaris where the taluk is sub-divided) from notes which they make and from reports from village accountants and circle inspectors. The estimate is sent direct to the Director of Agriculture, who, in the light of the general prospects of the season, makes the quantitative calculations. A copy of the estimate is at the same time sent to the district officer through the sub-divisional officer, who sends his remarks, if any, to the district officer, forwarding a copy of the same to the Director. The district officer on receipt of these remarks forwards to the Director his opinion as regards the general condition of the whole district. For Sind there are no formulæ, and all the necessary information is obtained from the district officers in the form of estimates on the basis of twelve annas for a normal crop, together with quantitative equivalents gathered from general experience. For the Native States condition estimates are obtained, and the formulæ for adjoining British districts are applied.

Bengal. (Total cultivated area 25,052,000 acres.)

The estimates for Bengal relate to all the districts of the Presidency where the respective crops are grown. In the absence of any revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. The system of making crop-cutting experiments, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Bengal for the last twenty years, but sufficiently trustworthy figures of yield have not yet been obtained from these cuttings to enable Government to accept them as standards. The quantitative estimates therefore of yield given in the forecasts are based on standards adopted provisionally on the basis of information obtained from other sources.

Central Provinces and Berar. (Total cultivated area 24,710,000 acres.)

The estimates for the Central Provinces and Berar relate to all the British districts of the province in which the respective crops reported on are grown. As regards the Native States of the province, reports on wheat only are furnished by the two States of Khairagarh and Nandgaon. No information is available for any other State. The figures of acreage for cotton sesamum, rice, and sugarcane are estimates based on reports furnished by the local officials of the Land Records staff. The figures for wheat and linseed represent the actual areas sown with these crops as disclosed by field-to-field inspection by patwaris. The reporting agency consists of 217 revenue inspectors with, on an average, 24 patwaris working under each inspector. Each tahsil has usually 4 revenue inspectors. Standards of outturn were framed for each crop from the results of crop-cutting experiments on selected fields under the supervision of responsible and selected officials during the years 1884-85 to 1887-88. These standards have been revised from time to time on the basis of the results of crop-cutting experiments since made, the last revision having been made in 1912. The yield expressed by the people in terms of annas in the rupee is converted into percentages, 13·3 annas, or a normal crop, being taken to be equal to 100. A full crop or 16 annas is denoted by 120, and a bumper crop or 20 annas by 150. All deductions based on the standards are made by the provincial Director of Land Records and Settlements from the year's figures furnished by the District officers, who are supposed to bear in mind the standards when estimating the yield of the season.

Punjab. (Total cultivated area 23,558,000 acres.)

The estimates for the Punjab relate to all the British districts in which the respective crops are grown. As regards the Native States of the province, reports on wheat and cotton are furnished by all the States in which the two crops are grown to any considerable extent. No estimates for any other crop are prepared by any Native State. The figures of area for all the British districts up to 1912-13 were based on actual measurements by the village revenue staff. Estimates of yield were recorded by district officers after personal enquiry from tahsildars and leading agriculturists. The total number of agriculturists consulted by the district officers and tahsildars must amount to several thousands. From 1913-14, however, this method is followed only in districts in which the respective crops are grown to a considerable extent. For other districts the provincial Director of Land Records prepares conventional forecasts based on the actual average area figures for the previous five years, and an assumed average outturn is determined by him to meet the character of the harvest.

Burma. (Total cultivated area 13,870,000 acres.)

The estimates for Burma relate to all the districts of the province in which the respective crops reported on are grown. The figures for the districts in which the crops are grown to a considerable extent are based on regular reports, furnished by district officers, while those for the remaining districts are based on rough estimates prepared by the Commissioner of Settlements and Land Records. For the districts from which regular reports are received, the figures of area are obtained from the assessment rolls prepared by revenue surveyors. The original information about the yield is obtained from township officers, inspectors of Land Records, and from the more important of the Land Revenue subordinate officers. In this way the estimate of each district is based on the information furnished by some thirty or more persons. The figures of both area and yield are tabulated by the Superintendent of Land Records and checked by the District officer. The Commissioner of Settlements and Land Records compares the estimated yield with a standard representing the normal yield, which was fixed after an extensive series of experimental crop-cuttings by settlement officers.

Assam, (Total cultivated area 5,813,000 acres.)

The estimates for Assam relate to all the districts in which the respective crops reported on are grown to any extent, excluding some of the unimportant hill districts in certain cases. The information is received from district officers, who in their turn obtain figures from mandals (headmen) in the case of the temporarily-settled areas and from zamindars in the case of the permanently-settled tracts. These figures are said to be checked by the sub-divisional and district officers, but, except where the district officer is himself able to do it, there is no valid check at all, and sometimes figures returned by the district officers are more or less inaccurate and inconsistent.

North-West Frontier Province. (Total cultivated area 2,272,000 acres.)

The estimates for the North-West Frontier Province relate to all the districts of the province in which the respective crops reported on are grown, including the Tochi agency in the case of wheat, cotton, and sugarcane, and the Kurram agency in the case of wheat and cotton. The figures of area are based on actual measurements made by the patwaris in their field-to-field inspection in each harvest. They are further checked by higher revenue officers. The estimates of the standard yield are based principally on data derived from a large number of crop-cutting experiments made during the progress of settlement operations. They were framed for each assessment circle, which is the unit of area, and separately for lands irrigated by canals, by wells, for alluvial (*sailab*) lands, and for lands entirely dependent on rain. The standards are applied to the estimates of condition of crops received from the district officers who frame their estimates in consultation with local agriculturists. The exact number of agriculturists consulted by the district officers is not available, but it must necessarily be several hundreds.

Ajmer-Merwara. (Total cultivated area 287,000 acres.)

The estimates for Ajmer-Merwara relate to the whole of the district. So far as *khalsa** *jagir* and minor *istamrari* villages are concerned, the patwari is responsible for making field-to-field inspections of every village in his circle at each harvest. These inspections commence on 1st September for the autumn harvest and on 1st February for the spring harvest. The patwari notes down the results of his local inquiries and inspections in his field book. A certain percentage of the entries made by the patwari is checked and corrected, when necessary, by the girdawar or kanungo, who also inspects the crops at each harvest. The tahsil officers further test a certain number of entries, and the sub-divisional officer also makes a general inspection of crops at each harvest. As soon as the inspection of the harvest is complete an abstract statement of area and outturn is compiled separately for each girdawar's circle and tahsil, and these statements are then consolidated for the three sub-divisions in the district office. An assumed normal outturn per acre for each crop has been fixed at settlement. Crop estimates are annually made by the revenue officers and the results recorded. These sets of figures give a useful check on the outturn estimates made by the patwaris. The exact area sown in the sub-divisions is obtained from the abstract statements. In the large *istamrari* estates the preparation of the field books is done by the estate officials. These field books contain fairly accurate information in regard to wheat, the outturn of which in maunds is generally appraised for the purpose of payment of the cultivators' rent; but as regards cotton and sesamum the figures are conjectural, as no crop-cutting experiments are made, the rents being charged in cash. The Government agency does not supervise the collection of figures in large *istamrari* estates.

Central India.

Estimates for wheat and cotton are received from the Native States in Central India; but they are in many cases imperfect. In the States of Indore, Gwalior, Rajgarh, Narsingarh, Kilchipur, Kurwai, Piploda, Bagli, Sitamau, Sailana, Jaora, Rutlam, Dewas, (Senior and Junior), Dhar, Barwani, and Jhabua, the figures of area are based on crop statements prepared by patwaris under the supervision of superior Revenue or Land Records officers. The returns include areas held revenue-free or on privileged tenure, but the figures for these areas are based on imperfect data in most cases and can be taken as rough estimates only. In the States of Pathari, Mahammadgarh, and Alirajpur the figures are based on rough estimates. As regards yield, the estimates are for the most part conjectural, no standard of average yield having been framed except in the States of Narsingarh, Dhar, Jhabua, Kurwai, Pathari, and Mahammadgarh.

Rajputana.

The estimates for wheat and cotton furnished by the States in Rajputana are generally defective in consequence of the absence of figures for unsurveyed areas and privileged tenures in many cases.

Hyderabad.

The estimates for wheat, cotton, and oilseeds furnished by the Hyderabad State excluded until 1902-03 jagir and other revenue-free lands or privileged tenures; since then estimates for these areas have been procured as far as possible and included in the statement.

Mysore. (Total cultivated area 6,141,000 acres.)

The estimates furnished by the Mysore State relate to all the districts of the State in which the respective crops are grown. As regards area the information is based on the entries made by the *shanbog* (village accountant) in his crop inspection book and checked by the higher revenue officers. The outturn is noted by the *shanbog* in terms of annas (16 annas being taken for a normal or 100 per cent crop) from which the total yield is determined by reference to the standard normal outturn per acre fixed for each taluk. The figures are finally scrutinized and consolidated in the Revenue Commissioner's office.

---

* *Khalsa* villages are those which pay full revenue to Government

APPENDIX III

NORMAL YIELD PER ACRE OF CROPS FOR WHICH FORECASTS ARE PREPARED

Province	Rice	Wheat	Sugar-cane	Cotton	Jute	Linseed	Rape and Mustard	Sesamum	Ground-nut	Indigo
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Bengal	(a) 987 (b) 823 (c) 1,111	864	2,921	155	1,271	494	494	350	...	12
Bihar and Orissa	(a) 1,234 (b) 823 (c) 823	(d) 984 (e) 451 (f) 861	2,464	155	1,200	494	494	350	...	20
Assam	(a) 1,008 (b) 672 (c) 1,012	...	1,904	154	1,320	...	504	...	...	...
United Provinces	900	1,050	2,600	160	...	500	600	280	...	18
Madras	(h) 1,193 (i) 887	...	5,040	(h) 87 (i) 55	...	...	...	(h) 373 (i) 238	1,120	35
Bombay	1,230	575	6,950	100	...	360	625	400	3,000	*
Sind	*	1,340	4,233	380	...	...	602	394	...	...
Punjab	...	726	1,686	118	...	...	396	...	...	*
Central Provinces and Berar	624	600	2,569	86	...	226	...	224	...	...
North West Frontier Province	...	633	2,430	160	..	...	418	...	...	...
Burma	(g) 1,070	...	...	122	..	...	...	...	...	...
Ajmer-Merwara	...	*	...	170	...	...	...	*	...	...
Coorg	1,488	...	...	...	...	...	...	...	...	...

* Not available
(a) Winter Rice (b) Autumn Rice (c) Summer Rice
(d) Bihar (e) Chota Nagpur (f) Orissa
(g) 997 lbs. for Upper Burma and 1,140 lbs. for Lower Burma (h) Irrigated (i) Unirrigated.

INDEX.

	Pages.
American notation	19, 20
Anna estimate	*ib.*
Area—	
Bajra (*Pennisetum typhoideum*)	16
Barley (*Hordeum vulgare*)	16
Cotton (*Gossypium sp.*)	10
Gram (*Cicer arietinum*)	17
Groundnut (*Arachis hypogæa*)	14
Indigo (*Indigofera Sumatrana and I. arrecta*)	*ib.*
Jawar (*Sorghum vulgare*)	16
Jute (*Corchorus sp.*)	11
Linseed (*Linum usitatissimum*)	11
Maize (*Zea mays*)	17
Rape and Mustard (*Brassica sp.*)	12
Rice (*Oryza sativa*)	7
Sesamum (*Sesamum indicum*)	13
Sugarcane (*Saccharum officinarum*)	9
Tea (*Camellia theifera*)	9
Wheat (*Triticum sativum*)	8
Area of crops, how ascertained	19, 21, 22, 23
Bajra—	
Area	16
Yield	*ib.*
Barley—	
Area	16
Yield	*ib.*
Charts illustrating the growth of production of crop	*frontispiece*
Cotton—	
Area	2, 10
Consumption	2, 10
Exports	2, 10
Yield	2, 10
Crop-cutting experiments	19
Development of the estimates	1
Diagrams comparing the yield of 1914-15 with that of 1909-10	4
Gram—	
Area	17
Yield	*ib.*
Groundnut—	
Area	14
Yield	*ib.*
Indian Notation	19
Indigo—	
Area	14
Yield	*ib.*
Jawar—	
Area	16
Yield	*ib.*
Jute—	
Area	11
Yield	*ib.*
Linseed—	
Area	11
Yield	*ib.*
Maize—	
Area	17
Yield	*ib.*
Method of framing estimates of crops	19, 20
Methods of collecting statistics	21—23
Mixed crop, treatment of—	19
Mustard (see Rape and Mustard)	
Normal crop, definition of—	19
Normal rainfall	18
Normal yield per acre	24
Notation for making crop estimates	19, 20
Percentage estimate	19, 20
Rainfall, normal and actual	18
Rape and Mustard—	
Area	12
Yield	*ib.*
Rice—	
Area	7
Yield	*ib.*
Season, leading features of—	1—4
Sesamum—	
Area	13
Yield	*ib.*
Source and scope of the estimates	1
Standard normal outturn	19
Sugarcane—	
Area	9
Yield	*ib.*
Tea—	
Area	9
Yield	*ib.*
Wheat—	
Area	8
Yield	*ib.*
Yield—	
Bajra	16
Barley	16
Cotton	6, 10
Gram	17
Groundnut	6, 14
Indigo	6, 14
Jawar	16
Jute	6, 11
Linseed	6, 11
Maize	17
Rape and mustard	6, 12
Rice	6, 7
Sesamum	6, 13
Sugarcane	6, 9
Tea	6, 9
Wheat	6, 8
Yield per acre—	
Cotton	15
Groundnut	*ib.*
Indigo	*ib.*
Jute	*ib.*
Linseed	*ib.*
Normal	24
Rape and Mustard	*ib.*
Rice	*ib.*
Sesamum	*ib.*
Sugarcane	*ib.*
Tea	*ib.*
Wheat	*ib.*

CALCUTTA : PRINTED BY SUPDT. GOVT. PRINTING, INDIA, 8, HASTINGS STREET.

LIBRARY
OF THE
BOMBAY
BRANCH
OF THE
SOCIETY

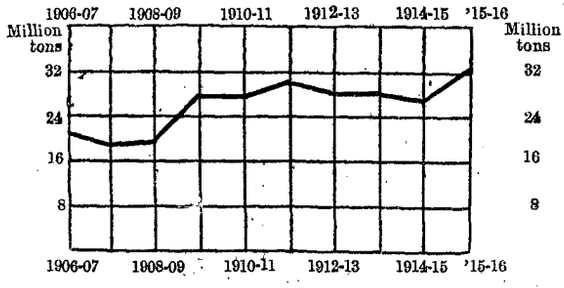
BOMBAY BRANCH
OF THE
Royal Asiatic Society.

Yield of certain principal crops from 1906-07 to 1915-16.

FOOD CROPS

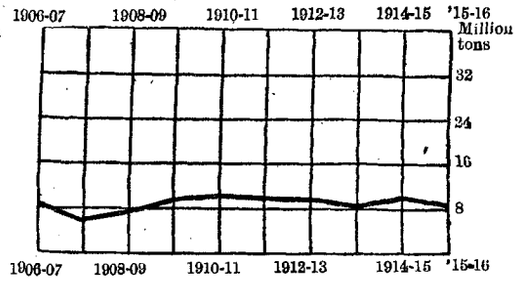
Rice

(In millions of tons.)



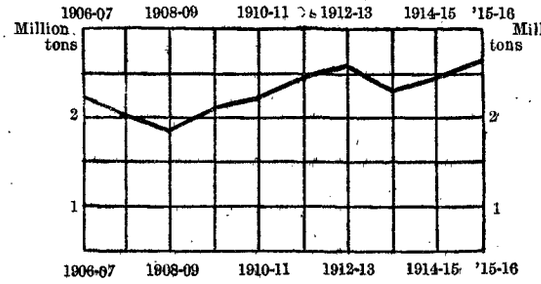
Wheat

(In millions of tons.)



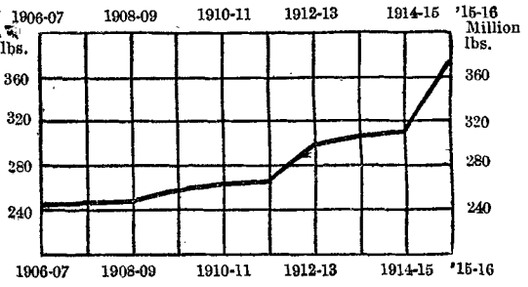
Sugarcane

(In millions of tons.)



Tea

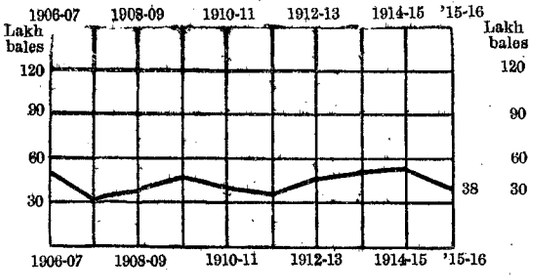
(In millions of lbs.)



FIBRES

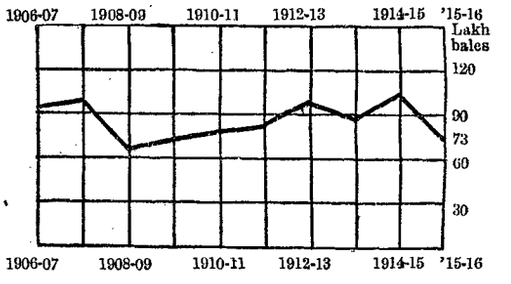
Cotton

(In lakhs of bales.)



Jute

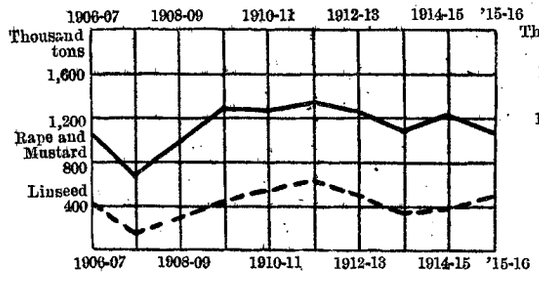
(In lakhs of bales.)



OILSEEDS

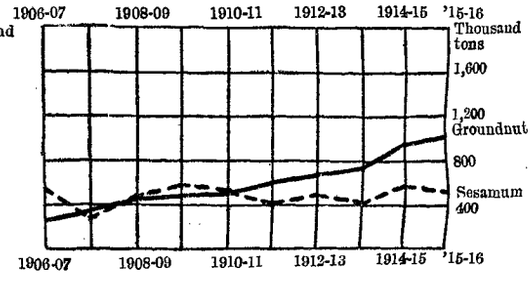
Rape and Mustard and Linseed

(In thousands of tons.)



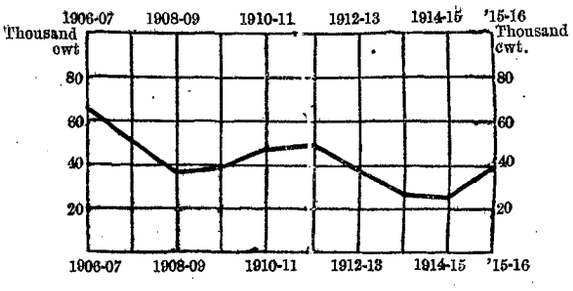
Sesamum and Groundnut

(In thousands of tons.)



INDIGO (DYE)

(In thousands of cwt.)



EIGHTEENTH ISSUE

DEPARTMENT OF STATISTICS, INDIA

ESTIMATES

OF

AREA AND YIELD

OF

Principal Crops in India

1915-16

Published by order of the Governor-General in Council

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1916

CONTENTS

Introductory Note

	Pages
Source and scope of the estimates	i
Leading features of the season in respect of each crop	1—4
Charts illustrating the increase or decrease in yield of each crop in the last ten years	*frontispiece*

Tables

No.				
1.	Abstract table—Area and Yield of each crop			6
2.	Yield per acre of each crop in each province			7
3.	Normal Yields per acre of crops for which forecasts are prepared			8
4.	Detailed table—Area and Yield of Rice in each province			9
5.	Ditto	ditto	Wheat	10
6.	Ditto	ditto	Sugarcane	11
7.	Ditto	ditto	Tea	*ib.*
8.	Ditto	ditto	Cotton	12
9.	Ditto	ditto	Jute	13
10.	Ditto	ditto	Linseed	*ib.*
11.	Ditto	ditto	Rape and Mustard	14
12.	Ditto	ditto	Sesamum (til or jinjili)	15
13.	Ditto	ditto	Groundnut	16
14.	Ditto	ditto	Indigo	*ib.*
15.	Supplementary table—Area and Yield of Barley, Jawar, Bajra, Maize, and Gram in each province			17—18
16.	Normal and actual Rainfall in each province			19
	Appendix I.—Method of framing estimates of crops			20—21
	Appendix II.—Methods of collecting the statistics province by province			22—24
	Appendix III.—Dates prescribed for the issue of the all-India forecasts			25
	Index			26

Estimates of Area and Yield of Principal Crops in India, 1915-16

INTRODUCTORY NOTE.

The present issue is the eighteenth of the series and relates to the area and yield of the principal crops for which estimates were made in 1915-16. It is the third of the new series that was commenced in 1913-14.

Source and scope of the estimates.

The periodical estimates or forecasts of certain crops are compiled from local returns and issued by this Department. The general practice is to issue a preliminary forecast, a second estimate, and a third or final estimate—fuller and more precise in data than the two former forecasts. The dates prescribed for the issue of the forecasts by this Department are given in Appendix III. The figures in the tables in this volume are those given in the final forecasts. They show the area sown and the estimated yield in the last ten years of: rice, wheat, sugarcane, tea, cotton, jute, linseed, rape and mustard, sesamum, groundnut, and indigo. The rates of yield per acre of these crops are shown in a separate table (No. 2, together with the normal yields in table No. 3).

Gradual development.

The estimates for these crops did not, especially in the earlier years of forecasts in India, relate to the total producing areas, but only to those tracts where the respective crops were grown on an extensive and commercial scale. Tracts of minor importance have been added gradually, as will be seen from the tables and the footnotes thereto. It should, therefore, be remembered that, owing to this gradual development, the estimates in the forecasts for earlier years are not altogether strictly comparable with those for later years, as is the case with the agricultural statistics of British India, published in Volume I of Agricultural Statistics of India. The increase in this respect, however, between the year under report as against the two previous years is so small as to be negligible and to afford a comparison of the estimates of the year (1915-16) with the two preceding years. At present the estimates for cotton, wheat, and jute relate to all the tracts in India where these crops are grown to any extent, excluding certain unimportant outlying tracts, such as Baluchistan, Kashmir, Nepal, and Sikkim. For other crops, however, the estimates, though relating to all the British provinces where they are grown to any considerable extent (excepting Burma in the case of sesamum), still exclude the Native States, except those in the Bombay Presidency and the States of Hyderabad and Baroda in certain cases. Further details regarding the reporting tracts are given in paragraphs below, in footnotes to the tables, and in Appendix II on pages 22-24. It may be noted that, owing chiefly to these causes, the figures given in this volume do not agree in some instances with those in the Agricultural Statistics of India.

Estimates, so far as available, for certain other staple crops, namely, barley, jawar, bajra, maize, and gram, have been shown in a supplementary table (No. 15), the figures being taken from the provincial Season and Crop Reports or especially obtained from local authorities.

Leading features of the season.

The monsoon was not very favourable. It arrived late and was weak and irregular in the northern parts of the Bombay Presidency, especially in Gujarat, in Sind, and in large areas of the Punjab. The rainfall in the north-eastern, central, and southern India was good or excessive, causing serious, and sometimes disastrous, floods in Assam and in parts of Bengal and the United Provinces. In the western and the north-western parts, on the other hand, a continued shortage of rain threatened at one time to have very serious consequences. Fortunately opportune rainfall in September and October greatly improved the prospects of the important *rabi* crops in the Punjab, and changed

* For the tea crop no forecast is prepared; the figures are taken from the Annual Report on the Production of Tea in India published by this Department.

the position considerably for the better elsewhere, especially in Gujarat. The winter rains in December, January, and February proved most inadequate as well as untimely in northern India, and this affected considerably the outturn of crops, such as wheat in the Punjab and elsewhere. Statistics of normal and actual rainfall are given in Table No. 16.

Rice.

Rice is generally regarded as a winter crop, being mainly harvested in December and January. It is sown in the months from May to August.* There are two other varieties of comparatively small importance, namely, autumn rice and summer rice. Autumn rice is sown in May—June and harvested in September, and summer rice is sown in January—February and harvested in May—June. The provinces to which the estimates for rice now relate are Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, the Central Provinces and Berar, Assam, Bombay, Sind, and Coorg. These tracts comprise 99 per cent of the total rice area of British India. The only Native States for which estimates for rice are prepared are those in the Bombay Presidency. The total area under rice in all these tracts in 1915-16 was reported as 76,792,000 acres as compared with 76,625,000 acres in the preceding year. Some damage was caused to the crop through deficient rainfall in the Bombay Presidency and by floods in parts of Assam. Elsewhere the season was, on the whole, favourable. The total estimated yield was 32,877,000 tons as against 27,242,000 tons in 1914-15. To this figure should be added some 300,000 tons in respect of other British provinces (containing about 760,000 acres under rice) for which no estimates are made.

Wheat.

Wheat, which is a *rabi* (spring) crop in India, is sown from October to December and harvested from March to May. The provinces and states to which the estimates for this crop relate are the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, Delhi, the Central Provinces and Berar, Bombay, Sind, Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad, and Mysore. These tracts contain practically the whole of the area under wheat in India. The total area under wheat in 1915-16 was reported to be 30,143,000 acres, which falls below the area of the preceding year by 2,332,000 acres or 7 per cent. The failure of the winter rains seriously affected the crop, particularly on unirrigated areas in the Punjab, the North-West Frontier Province, Ajmer-Merwara, Rajputana, Sind, the western parts of the United Provinces, and the northern parts of the Bombay Presidency. In the Central Provinces and Berar, Bihar and Orissa, Hyderabad, Bengal, the Bombay Deccan, and in the eastern and southern parts of the United Provinces and of Central India, conditions of the crop were, on the whole, favourable. The total estimated yield was 8,518,000 tons, which is short of the final figure of 1914-15 by 1,569,000 tons or 16 per cent.

Sugarcane.

The sugarcane crop is planted from February to May and harvested from November to January. The provinces to which the reports on this crop relate are the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, Bombay (including Sind), Madras, and the Central Provinces and Berar. These tracts contain 99 per cent of the total area under sugarcane in British India. Reports are also received from the Native States in the Bombay Presidency (including the Baroda State). No report is received from any other Native State. The total reported area (2,375,000 acres) under sugarcane in 1915-16 was 3 per cent above that of the preceding year. The crop, on the whole, fared better than in the preceding year. The estimated yield (2,636,000 tons) was 7 per cent above the final figure (2,462,000 tons) of the preceding year. To this figure should be added approximately 26,000 tons in respect of other British provinces for which no separate estimates are made.

Tea.

The provinces where tea is grown are Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma, and the State of Travancore. The total area under tea in 1915 was reported to be 636,200 acres, which is 2 per cent greater than that in the preceding year. The weather during June was cold and wet. In July there were heavy floods in parts of the Assam (Brahmaputra) Valley and in Cachar and Sylhet, which, however, quickly subsided. During autumn the season was very favourable for a prolific yield.

* In parts of Southern India sowing extends to November

Unusually warm weather prevailed towards the close of the season, which had the effect of prolonging the season. The total production of manufactured tea (both black and green) was reported to be 371,836,700 lbs in 1915 as against 312,976,200 lbs in the preceding year.

Cotton.

The total reported area under cotton was 17,967,000 acres in 1915-16 as against 24,595,000 acres in 1914-15. The decrease in area sown was attributed chiefly to the low prices of cotton obtained in the preceding year, and also in some provinces to the vagaries of the monsoon. The seasonal conditions were, on the whole, fair to good, except in the western Punjab, Burma, Ajmer-Merwara, Rajputana, and the northern parts of the Bombay Presidency proper. In these tracts the crop suffered severely from drought. The total estimated outturn was 3,819,000 bales of 400 lbs each, which is 1,390,000 bales or 27 per cent less than the final figure of 1914-15. The figure for 1914-15 for outturn was the highest on record. The marginal statement compares the estimates of yield for the last three years with the sum of net exports and internal consumption (in thousands of bales). It may be noted, however, that while the statistics of exports and consumption take into account stocks carried from year to year, the estimates of yield refer to the years specified.

	Thousand bales		
	1913-14	1914-15	1915-16
Net exports	3,647	2,118	2,359
Mill consumption	1,816	1,771	1,891
Consumption outside mills (conjectural)	450	1,000	750
Total	5,913	4,889	5,000
Estimate of yield	5,066	5,209	3,819
Excess (+) or deficit (−)	−847	+320	−1,181

There are, it may be remembered, two crops of cotton grown in India, *viz.*, the early and the late. Early cotton grows principally in northern and central India, and late cotton largely in southern and western India. Taking both the crops together, the sowing season extends from March to August and the harvesting season from October to April. In parts of Southern India sowings continue till October and harvesting till July. The estimates given above relate to all the cotton-growing provinces and states in India.

Jute.

Jute is sown from March to May and harvested in August and September. The provinces where it is grown are Bengal, Bihar and Orissa, and Assam. It is also grown to a small extent in the Nepal State, but no reliable information is available for that State. The total reported area under jute in 1915 (2,377,000 acres) fell short of that of the preceding year by 29 per cent, and the estimated yield (7,345,000 bales of 400 lbs each) by 30 per cent. The area was restricted, owing mainly to low prices due to the war. Although the rainfall was not on the whole ill-distributed, the crop was damaged to a considerable extent by floods in some of the important districts of Eastern Bengal and of Assam.

Linseed.

Linseed is a *rabi* (spring) crop, being sown from August to October and harvested from January to April. The provinces to which the estimates for linseed relate are the United Provinces, the Central Provinces and Berar, Bengal, Bihar and Orissa, the Punjab, and Bombay. These tracts comprise 98·9 per cent of the total area under linseed in British India. Reports are also made by the States of Hyderabad and Baroda and by the States in the Bombay Presidency. No report is received from any other Native State. The total area under linseed reported by all the reporting tracts in 1915-16 was 3,317,000 acres, which is 0·2 per cent below the final figure of the preceding year. The condition of the crop was, on the whole, fairly good, except in the Punjab, where, however, the crop is not important. The total estimated yield (474,000 tons) was larger than that of the preceding year by 19·4 per cent. To this figure should be added some 4,000 tons for other British provinces for which no separate estimates are made.

Rape and mustard.

Rape and mustard are also *rabi* (spring) oilseeds, being sown from August to October and harvested from January to April. The provinces from which reports are received are the Punjab, Bengal, Bihar and Orissa, Assam, the United Provinces, the North-West Frontier Province, Bombay, and Sind. These tracts contain 99·2 per cent of the total area under rape and mustard in British India. Reports are also received from the States of Hyderabad and Baroda and from the States in the Bombay Presidency. No report is received from

any other Native State. The total area under rape and mustard reported by all the reporting tracts in 1915-16 was 6,373,000 acres, which is 2 per cent below the figure for the preceding year. Owing to insufficient winter rains, conditions were not, on the whole, favourable, except in Bihar and Orissa, Bengal, and the southern parts of the United Provinces, where conditions were fair to good. The total estimated yield (1,083,000 tons) was 11 per cent below the final figure of the preceding year. To this figure should be added some 9,000 tons in respect of other British provinces for which no separate estimates are made.

Sesamum.

Sesamum is mainly a *kharif* (autumn) crop, being sown from May to July and harvested from October to December; in parts of Southern India sowing continues till September or October and harvesting till March or April. A *rabi* or summer variety is also grown in certain tracts; this is sown in January and February and harvested in May to July. The provinces to which the estimates for sesamum relate are the Central Provinces and Berar, Bombay, Sind, Madras, the United Provinces, Bengal, Bihar and Orissa, the Punjab, and Ajmer-Merwara. These tracts contain about 78 per cent of the total area under sesamum in British India. Reports are also received from the Native States of Hyderabad and Baroda and those in the Bombay Presidency. No report is received from any other Native State or from Burma. The total reported area under sesamum in 1915-16 was 5,170,000 acres against 5,565,000 acres in the preceding year. The seasonal conditions were favourable in Madras, the Central Provinces and Berar, Bihar and Orissa, Hyderabad, and in the important sesamum-growing districts of the United Provinces. Elsewhere the season was not favourable, the crop having suffered through deficient rainfall in the Punjab, Sind, Ajmer-Merwara, and in the greater part of the Bombay Presidency, and through excessive rain in Bengal, in parts of Bombay and of the United Provinces. The total estimated yield was 501,000 tons as against 551,000 tons in 1914-15—a decrease of 9 per cent. An addition of approximately 22 per cent should be made to this figure in respect of other British provinces (containing an aggregate area of about 1,134,000 acres under sesamum) for which no estimate is made.

Groundnut.

The groundnut crop is sown from May to August and is harvested from November to January. The provinces to which the estimates for this crop relate are Madras, Bombay (including Native States), and Burma, these being the provinces where groundnut is grown to a considerable extent. The total area under groundnut in these three provinces in 1915-16 was reported as 1,935,000 acres, which is 20 per cent less than the figure of the preceding year, the estimated yield (1,011,000 tons) being 7 per cent in excess of last year. The decrease in area was mainly in the Bombay and the Madras Presidencies and was due to the late commencement of rains and to low prices. The season was, on the whole, favourable.

Indigo.

The indigo crop is sown from February to July and harvested from August to November. The provinces to which the estimates for indigo relate are Bihar and Orissa, Bengal, the United Provinces, the Punjab, Madras, Bombay, and Sind. These tracts contain practically the whole area under indigo in British India. No report is received from any Native State, except the State of Khairpur in Sind. The total reported area (314,000 acres) in 1915-16 is 112 per cent greater than that of the preceding year. The increase in area was due to high prices of indigo on account of the war. In Madras the crop did very well, except in the Circars. Elsewhere the season was not, on the whole, favourable. There was a scarcity of reliable seed for sowing in the United Provinces. In Madras also much indifferent seed was sown, owing to the exceptionally high prices of seed at sowing time. The total estimated yield of dye was 40,000 cwts, which was greater than the figure of the preceding year by 58 per cent.

G. FINDLAY SHIRRAS,
Director of Statistics

DEPARTMENT OF STATISTICS, INDIA,
Calcutta, September 1, 1916.

TABLES

Note.—The rates of yield per acre of the crops tabulated in tables Nos. 4 [illegible] table No. 2.

No. 1.—ABSTRACT TABLE—AREA AND YIELD OF EACH CROP

Area (acres)

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	Average 1910-11 to 1914-15	1911-12	1912-13	1913-14	1914-15	1915-16
Rice . . .	50,855,000	50,067,000	54,894,000	69,286,000	64,726,000	71,623,000	75,425,000	76,625,000	76,792,000
Wheat . .	22,649,000	25,518,000	26,565,000	30,540,000	31,141,000	30,043,000	28,475,000	32,475,000	30,143,000
Sugarcane . .	(a)	2,258,000	2,284,000	2,376,000	2,380,300	2,526,700	2,545,500	2,311,000	2,375,000
Tea . . .	467,000	525,000	540,000	593,000	574,600	591,800	610,100	622,600	636,200
Cotton . .	13,866,000	16,652,000	21,146,000	23,171,000	21,615,000	22,028,000	25,023,000	24,595,000	17,967,000
Jute . . .	2,035,000	2,335,000	3,264,000	3,057,000	3,106,400	2,970,500	2,911,000	3,358,700	2,377,300
Linseed . .	2,869,000	3,547,000	3,061,000	3,852,000	5,038,000	4,124,900	3,031,000	3,325,000	3,317,000
Rape and Mustard	4,541,000	5,598,000	6,056,000	6,407,000	6,990,300	5,955,800	6,266,400	6,507,000	6,373,000
Sesamum . .	4,019,000	4,903,000	4,915,000	5,129,000	4,808,100	4,989,500	5,076,000	5,565,000	5,170,000
Groundnut . .	(a)	431,000	827,000	1,610,000	1,214,100	1,366,400	2,105,900	2,413,000	1,935,000
Indigo . .	1,280,000	722,000	354,000	216,000	266,900	216,800	172,600	148,400	314,300

Yield

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	Average 1910-11 to 1914-15	1911-12	1912-13	1913-14	1914-15	1915-16
Rice . . tons	21,466,000	21,550,000	21,882,000	28,498,000	30,074,000	28,485,000	28,790,000	27,242,000	32,877,000
Wheat . „	6,029,000	7,676,000	8,092,000	9,657,000	9,924,500	9,853,000	8,358,000	10,087,000	8,518,000
Sugarcane . „	(a)	2,049,000	1,996,000	2,401,000	2,451,100	2,583,600	2,291,500	2,462,000	2,636,000
Tea . . lbs.	158,375,000	201,389,000	242,386,000	289,995,000	268,602,700	297,878,100	307,249,600	312,976,200	371,836,700
Cotton . bales	2,303,000	3,203,000	3,976,000	4,405,000	3,288,000	4,610,000	5,066,000	5,209,000	3,819,000
Jute . . „	5,771,000	7,036,000	8,136,000	9,069,000	8,234,700	9,842,800	8,893,900	10,443,900	7,345,500
Linseed . tons	352,000	416,000	333,000	508,000	644,900	542,100	386,200	397,000	474,000
Rape and Mustard . „	915,000	1,011,000	992,000	1,225,000	1,325,700	1,241,200	1,087,500	1,219,200	1,083,100
Sesamum . „	348,000	465,000	448,000	468,000	397,600	474,000	403,500	551,000	501,000
Groundnut . „	(a)	(a)	358,000	695,000	605,700	669,900	748,800	947,000	1,011,000
Indigo . cwts	156,000	100,000	49,000	37,000	47,700	39,100	26,800	25,200	39,900

Note.—Figures for 1915-16 are subject to revision.
(a) Not available.

No. 2.—YIELD PER ACRE OF CROPS (tabulated in tables 4 to 14) IN EACH PROVINCE

Province	Rice (a)				Wheat				Sugarcane (b)				Tea				Cotton (c)			
	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United Provinces	657	467	734	805	891	777	933	918	2,045	1,582	2,167	2,399	341	322	297	368	148	122	125	126
Madras	908	878	875	1,000	...	...	...	...	4,636	4,019	4,783	3,855	310	270	320	412	78	45	46	65
Bihar and Orissa	826	1,121	826	1,209	933	973	638	979	2,464	2,464	2,333	2,214	117	142	128	133	83	93	91	94
Bombay	1,131	1,090	1,180	1,035	701	539	602	542	5,098	5,588	5,973	6,090	...	...	...	...	89	88	91	84
Sind	834	649	814	817	938	901	987	636					...	...	...	...	166	158	138	121
Bengal	907	837	702	886	782	793	535	669	2,658	2,512	2,403	2,490	469	514	473	555	165	110	151	136
Punjab	...	...	...	...	719	745	736	543	1,674	1,684	1,805	1,742	208	229	196	199	95	119	105	85
C. P. and Berar	...	371	729	744	636	455	514	603	...	2,383	2,594	2,773	...	...	...	...	81	81	93	109
Burma	1,012	899	824	955	...	...	...	...	...	...	...	...	49	51	52	52	79	74	62	57
Assam	1,021	782	786	738	...	...	...	...	1,941	1,898	1,781	1,742	550	543	553	639	114	145	141	125
North-West Frontier Province	...	...	...	...	497	585	627	553	2,509	2,480	2,520	2,312	...	...	...	...	93	95	93	92
Ajmer-Merwara	...	...	...	...	...	896	589	373	...	...	...	...	...	...	...	...	208	105	111	35
Delhi	...	...	...	...	...	...	...	880	...	...	...	...	...	...	...	...	...	...	...	...
Coorg	1,430	956	1,466	1,448	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	731	412	464	490	...	...	...	...	...	...	...	...	63	77	77	86
Rajputana	...	...	...	...	539	439	549	400	...	...	...	...	...	...	...	...	127	112	158	108
Hyderabad (f)	...	...	...	...	126	137	127	161	...	...	...	...	...	...	...	...	42	44	44	56
Mysore	...	...	...	...	560	747	363	328	...	...	...	...	...	...	...	...	49	47	51	61
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	471	405	413	498	...	...	...	...
AVERAGE	891	855	796	959	735	657	696	633	2,290	2,016	2,386	2,486	503	504	501	584	84	81	85	85

Province	Jute				Linseed				Rape and Mustard				Sesamum				Groundnut (d)				Indigo			
	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16	1912-13	1913-14	1914-15	1915-16
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United Provinces	...	...	...	...	431	361	399	448	520	340	505	420	247	109	189	202	...	...	...	...	15	14	14	11
Madras	...	...	...	...	...	...	...	...	...	...	...	...	178	200	200	227	827	574	696	984	27	23	21	15
Bihar and Orissa	1,063	757	840	1,296	444	514	366	459	444	494	322	426	250	320	283	339	...	...	...	...	18	12	16	13
Bombay	...	...	...	...	227	181	302	320	592	571	567	373	272	236	348	266	2,210	2,199	2,248	2,655	...	31	27	16
Sind	...	...	...	...	...	...	...	...	235	258	251	234	214	263	130	179	...	...	...	...				
Bengal	1,370	1,292	1,295	1,245	419	395	320	347	449	454	395	395	297	270	259	244	...	...	...	...	11	9	17	14
Punjab	...	...	...	...	...	190	229	192	395	369	374	283	229	246	242	267	...	...	...	...	18	17	18	16
C. P. and Berar	...	...	...	...	210	166	146	177	...	...	...	...	175	180	209	225	...	...	...	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,003	799	733	881	...	...	...	...
Assam	948	941	1,102	836	...	...	...	...	443	459	427	354	380	320	...	...	...	...	...	...	..	...	...	...
North-West Frontier Province	...	...	...	...	...	...	...	...	213	252	314	299	...	...	..	...	...	...	...	...	...	...	...	...
Ajmer-Merwara(e)	...	...	...	...	...	...	...	...	...	...	...	...	...	19	64	17	...	...	...	...	...	...	...	...
Delhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajputana	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad (f)	...	...	...	...	76	90	86	93	40	40	64	37	112	92	101	90	...	...	...	...	...	...	...	...
Mysore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE	1,325	1,222	1,244	1,236	294	285	267	320	467	389	419	381	213	178	222	217	1,098	796	879	1,170	20	17	19	14

(a) Cleaned rice (b) Raw sugar or gur (c) Cleaned, i.e., ginned cotton (d) Nuts in shell

(e) The low outturn of sesamum in Ajmer-Merwara is due to the fact that the crop is grown on unirrigated land which is not manured and on which no other valuable crop is expected to give a yield sufficiently remunerative

(f) The question regarding the generally low outturn in Hyderabad is under investigation.

Note.—The figures for 1915-16 are subject to revision.

No. 3.—NORMAL YIELDS PER ACRE OF CROPS FOR WHICH FORECASTS ARE PREPARED

Province	Rice	Wheat	Sugar-cane	Cotton	Jute	Linseed	Rape and Mustard	Sesamum	Ground-nut	Indigo
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Bengal	(a) 987 (b) 823 (c) 1,111	864	2,921	155	1,271	494	494	350	...	12
Bihar and Orissa	(a) 1,234 (b) 823 (c) 823	(d) 984 (e) 451 (f) 861	2,464	155	1,200	494	494	350	...	20
Assam	(a) 1,008 (b) 672 (c) 1,012	...	1,904	154	1,320	...	504	...	...	...
United Provinces	900	1,050	2,600	160	...	500	600	280	...	18
Madras	(h) 1,680 (i) 887	...	5,040	(h) 87 (i) 65	...	...	...	300	1,120	35
Bombay	1,230	575	6,950	100	...	360	625	400	3,000	*
Sind	1,180	1,340	4,233	(j) 380	...	...	602	394	...	...
Punjab	...	726	1,686	118	...	*	396	...	...	*
Central Provinces and Berar	624	600	2,569	86	...	226	...	224	...	...
North-West Frontier Province	...	633	2,430	160	...	...	418	...	...	...
Burma	(g) 1,070	...	...	122	...	...	...	...	870	...
Ajmer-Merwara	...	*	...	170	...	...	...	*	...	...
Delhi	...	*	...	...	...	...	...	...	...	...
Coorg	1,483	...	...	...	...	...	...	...	...	...

* Not available
(a) Winter Rice (b) Autumn Rice (c) Summer Rice
(d) Bihar (e) Chota Nagpur (f) Orissa
(g) 997 lbs. for Upper Burma and 1,140 lbs. for Lower Burma
(h) Irrigated
(i) Unirrigated
(j) Subject to revision

No. 4.—AREA AND YIELD OF RICE IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bengal (*a*)	40,239,000	40,210,000	38,158,000	42,977,000	42,793,000	20,437,000	20,639,000	19,846,000	20,450,000	20,916,000
Bihar and Orissa	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	17,363,000	16,196,000	16,223,000	16,130,000	16,249,000
Madras (*b*)	6,944,000	7,215,000	7,361,000	7,675,000	7,787,000	10,288,000	10,944,000	10,678,000	10,876,000	10,668,000
Burma (*e*)	6,974,000	7,252,000	7,569,000	7,467,000	7,449,000	7,373,000	9,966,000	10,056,000	9,993,000	10,024,000
United Provinces	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	5,220,000	6,811,000	6,062,000	6,200,000	6,498,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	4,986,000	5,083,000	5,097,000
Assam	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	4,045,000	4,272,000	3,752,000	4,045,000	4,051,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,624,000	2,628,000	2,650,000	2,165,000
Sind (including Native States) (*g*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,088,000	1,112,000	1,117,000	1,042,000
Coorg	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	83,000	82,000	81,000	82,000
TOTAL	54,157,000	54,677,000	53,088,000	58,119,000	58,029,000	64,726,000	71,623,000	75,425,000	76,625,000	76,792,000

Yield (tons)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bengal (*a*)	15,769,000	13,328,000	14,131,000	21,780,000 (*h*)	21,848,000 (*h*)	8,635,000	8,356,000	7,412,000	6,411,000	8,276,000
Bihar and Orissa	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	8,906,000	5,969,000	8,120,000	5,947,000	8,768,000
Madras (*b*)	2,522,000	2,475,000	2,185,000	2,868,000	3,174,000	5,833,000	4,435,000	4,186,000	4,247,000	4,764,000
Burma (*e*)	3,096,000	3,157,000	3,233,000	3,209,000	2,875,000	3,325,000	4,501,000	4,037,000	3,675,000	4,275,000
United Provinces	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,779,000	1,998,000	1,264,000	2,032,000	2,334,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	825,000	1,655,000	1,693,000
Assam	(*c*)	(*c*)	(*c*)	(*c*)	(*c*)	1,596,000	1,948,000	1,310,000	1,420,000	1,334,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	820,000	1,279,000	1,396,000	1,000,000
Sind (including Native States) (*g*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	405,000	322,000	406,000	380,000
Coorg	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	53,000	35,000	53,000	53,000
TOTAL	21,387,000	18,960,000	19,549,000	27,857,000	27,897,000	30,074,000	28,485,000	28 790,000	27,242,000	32,877,000

(*a*) Includes Bihar and Orissa and Assam down to 1910-11

(*b*) The estimates for Madras for 1906-07 relate only to *raiyatwari* villages; since that year estimates for *zamindari* and whole *inam* villages have also been included. The estimates for years prior to 1911-12 are generally defective

(*c*) Included under Bengal

(*d*) Not available

(*e*) The figures down to 1911-12 relate only to the chief rice-growing districts in Lower Burma

(*f*) The estimates relate to all rice-growing districts. Figures for Baroda and other Native States have been added from 1913-14

(*g*) Includes Native State from 1913-14

(*h*) Season very favourable

Note.—Figures for 1915-16 are subject to revision

No. 5.—AREA AND YIELD OF WHEAT IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Punjab (*a*)	9,100,000	8,272,000	9,002,000	9,142,000	9,981,000	11,018,000	9,316,000	9,588,000	11,336,000	10,256,000
United Provinces	7,044,000	4,406,000	5,695,000	6,491,000	7,342,000	7,578,000	7,382,000	6,406,000	7,301,000	6,621,000
Central Provinces and Berar (*b*)	3,714,000	2,801,000	2,860,000	3,176,000	3,585,000	3,739,000	3,743,000	3,384,000	3,393,000	3,616,000
Central India States	2,448,000	1,694,000	2,046,000	2,313,000	2,460,000	2,563,000	3,216,000	2,695,000	3,096,000	2,969,000
Bombay (including Native States) (*c*)	1,663,000	1,678,000	1,746,000	1,820,000	1,855,000	1,284,000	1,735,000	2,102,000	2,253,000	2,049,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	1,312,000	1,285,000	1,270,000	1,342,000	1,218,000	1,330,000
North-West Frontier Province (*e*)	1,146,000	978,000	1,019,000	1,008,000	1,083,000	1,203,000	879,000	992,000	1,183,000	859,000
Hyderabad State	1,040,000	933,000	1,098,000	1,097,000	1,104,000	970,000	851,000	702,000	898,000	1,045,000
Rajputana States	842,000	604,000	888,000	1,085,000	1,187,000	963,000	1,014,000	622,000	902,000	649,000
Sind (including Native States)	672,000	447,000	548,000	471,000	560,000	391,000	487,000	490,000	706,000	571,000
Bengal (*f*)	1,539,000	1,096,000	1,332,000	1,500,000	143,000	143,000	146,000	144,000	134,000	134,000
Delhi	(*g*)	(*g*)	(*g*)	(*g*)	(*h*)	(*h*)	(*h*)	(*h*)	32,000	28,000
Ajmer-Merwara	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	5,000	19,000	12,000
Mysore State	4,000	2,000	2,000	3,000	3,000	4,000	4,000	3,000	4,000	4,000
TOTAL	29,212,000	22,911,000	26,236,000	28,106,000	30,565,000	31,141,000	30,043,000	28,475,000	32,475,000	30,143,000

Yield (tons)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Punjab (*a*)	3,267,000	2,489,000	3,062,000	3,434,000	3,709,000	3,809,000	2,989,000	3,189,000	3,725,000	2,487,000
United Provinces	2,165,000	1,675,000	2,124,000	2,975,000	2,919,000	3,032,000	2,938,000	2,221,000	3,042,000	2,713,000
Central Provinces and Berar (*b*)	904,000	507,000	721,000	992,000	973,000	904,000	1,062,000	688,000	778,000	973,000
Central India States	615,000	271,000	397,000	514,000	582,000	686,000	1,049,000	496,000	642,000	649,000
Bombay (including Native States) (*c*)	338,000	336,000	383,000	451,000	506,000	265,000	543,000	506,000	605,000	496,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	570,000	557,000	529,000	583,000	347,000	581,000
North-West Frontier Province (*e*)	305,000	213,000	213,000	235,000	266,000	280,000	195,000	259,000	331,000	212,000
Hyderabad State	109,000	67,000	72,000	68,000	97,000	43,000	48,000	43,000	51,000	75,000
Rajputana States	182,000	133,000	199,000	266,000	265,000	204,000	244,000	122,000	217,000	116,000
Sind (including Native States)	186,000	113,000	134,000	132,000	136,000	97,000	204,000	197,000	311,000	162,000
Bengal (*f*)	421,000	321,000	334,000	566,000	38,000	47,000	51,000	51,000	32,000	40,000
Delhi	(*g*)	(*g*)	(*g*)	(*g*)	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	11,000
Ajmer-Merwara	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	(*h*)	2,000	5,000	2,000
Mysore State	700	600	200	400	500	500	1,000	1,000	1,000	1,000
TOTAL	8,492,700	6,125,600	7,639,200	9,633,400	10,061,500	9,924,500	9,853,000	8,358,000	10,087,000	8,518,000

(*a*) Includes Native States from 1907-08
(*b*) Includes the Native States of Khairagarh and Nandgaon from 1907-08
(*c*) Includes also the Native State of Baroda. Estimates for non-reporting tracts have been added from 1912-13
(*d*) Included under Bengal
(*e*) Includes the Tochi and the Kurram Agencies
(*f*) Includes Bihar and Orissa up to 1909-10
(*g*) Included under Punjab
(*h*) Not available

NOTE.—Figures for 1915-16 are subject to revision

No. 6.—AREA AND YIELD OF SUGARCANE IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	1,386,700	1,481,700	1,120,100	1,037,600	1,047,100	1,340,600	1,425,400	1,379,900	1,192,000	1,264,000
Punjab (*a*)	277,700	391,800	365,700	403,800	387,900	284,800	367,000	410,900	366,000	346,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	263,000	266,100	262,800	266,000	262,000
Bengal (*c*)	606,700	607,200	553,000	507,800	515,600	223,300	221,800	218,300	233,000	233,000
Bombay (including Native States)(*e*)	(*d*)	74,300	92,800	89,200	83,400	94,700	79,400	91,400	90,000	96,000
Madras (*f*)	52,100	49,000	43,700	43,800	47,900	107,700	98,800	83,600	74,000	86,000
Assam	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	34,700	38,200	46,500	39,000	36,000
North-West Frontier Province (*g*)	28,600	35,200	27,500	30,600	32,700	31,500	30,000	31,700	32,000	31,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	20,400	19,000	21,000
TOTAL	2,351,800	2,639,200	2,202,800	2,112,800	2,114,600	2,380,300	2,526,700	2,545,500	2,311,000	2,375,000

Yield (tons) of raw sugar (gûr)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	1,264,600	916,700	844,200	955,200	1,042,900	1,259,300	1,301,500	974,500	1,153,000	1,354,000
Punjab (*a*)	212,800	238,700	265,600	328,700	262,600	161,200	274,300	308,900	295,000	269,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	303,800	292,700	289,100	277,000	259,000
Bengal (*c*)	594,700	583,100	430,800	495,800	563,500	256,300	263,200	244,800	250,000	259,000
Bombay (including Native States)(*e*)	(*d*)	184,200	221,200	232,300	226,000	214,600	180,700	228,000	240,000	261,000
Madras (*f*)	100,400	92,000	81,000	82,000	87,100	196,000	204,500	150,000	158,000	148,000
Assam	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	28,000	33,100	39,400	31,000	28,000
North-West Frontier Province (*g*)	32,800	32,200	30,100	33,100	35,700	31,900	33,600	35,100	36,000	32,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	21,700	22,000	26,000
TOTAL	2,205,300	2,046,900	1,872,900	2,127,100	2,217,800	2,451,100	2,583,600	2,291,500	2,462,000	2,636,000

(*a*) Figures for years prior to 1913-14 exclude unimportant districts
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa and Assam down to 1910-11
(*d*) Not available
(*e*) Includes also the State of Baroda. Up to 1911-12 the figures related to the chief sugarcane growing districts only; from 1912-13 those for other districts and for Sind have been added; estimates for non-reporting tracts have been added from 1909-10
(*f*) The estimates for Madras for 1906-07 relate only to *raiyatwari* villages; since that year estimates for *zamindari* and *whole inam* villages have also been included
(*g*) Up to 1912-13 the figures related to three selected districts. From 1913-14 all the districts including the Tochi Agency have been reported on

NOTE.—Figures for 1915-16 are subject to revision

No. 7.—AREA AND YIELD OF TEA IN EACH PROVINCE

Area a cres)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Assam	339,200	342,300	345,600	348,000	350,200	354,300	361,700	367,800	376,400	383,800
Bengal	136,500	139,500	141,600	143,200	145,900	146,800	150,500	156,100	159,300	161,300
Travancore	27,500	26,000	27,100	29,200	30,400	32,600	34,100	37,400	38,800	40,700
Madras	10,100	11,000	14,600	15,700	18,100	20,600	24,400	26,300	26,900	27,600
United Provinces	8,000	8,000	8,100	8,100	7,900	7,600	7,800	8,000	8,000	7,900
Punjab	9,400	9,400	9,400	9,400	9,400	9,400	9,300	9,300	9,900	9,900
Bihar and Orissa (*a*)	...	...	...	...	...	2,200	2,300	2,200	2,200	2,200
Burma	1,500	1,700	1,700	1,700	1,700	1,700	1,700	3,000	3,000	2,800
TOTAL	532,200	537,900	548,100	555,300	563,600	574,600	591,800	610,100	624,500	636,200

Yield (lbs)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Assam	162,468,000	164,194,300	166,456,900	174,851,200	175,095,100	179,053,000	198,798,300	199,722,000	208,227,100	245,385,900
Bengal	60,688,200	60,216,600	59,971,600	60,920,700	64,674,200	64,653,900	70,524,200	80,108,700	75,373,200	89,526,100
Travancore	11,186,300	12,749,400	12,593,800	13,353,700	14,323,100	14,714,500	16,059,600	15,155,600	16,010,200	20,248,800
Madras	3,094,500	3,470,600	4,436,400	5,325,700	5,645,200	5,795,400	7,555,800	7,089,000	8,607,600	11,361,600
United Provinces	2,290,200	2,294,600	2,009,900	2,206,600	2,045,300	2,534,700	2,656,800	2,579,100	2,379,200	2,906,000
Punjab	1,237,700	1,237,500	1,437,500	1,413,700	1,418,900	1,489,200	1,931,000	2,129,800	1,941,300	1,969,600
Bihar and Orissa (*a*)	...	...	...	...	...	285,500	269,100	311,600	282,400	293,200
Burma	112,600	129,600	118,400	64,800	67,600	76,500	83,300	153,300	155,200	145,500
TOTAL	241,077,500	244,292,600	247,024,500	258,136,400	263,269,400	268,602,700	297,878,100	307,249,600	312,976,200	371,836,700

(*a*) Figures for years down to 1910 are included under Bengal

No. 8.—AREA AND YIELD OF COTTON IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bombay (including Native States) (*a*)	7,383,000	7,101,000	6,241,000	6,469,000	7,334,000	5,786,000	6,826,000	7,323,000	7,796,000	4,815,000
Central Provinces and Berar	4,678,000	4,432,000	4,176,000	4,167,000	4,487,000	4,648,000	4,493,000	4,754,000	4,708,000	4,061,000
Hyderabad State	3,480,000	3,100,000	2,902,000	3,401,000	3,562,000	3,234,000	2,888,000	3,653,000	3,605,000	3,220,000
Madras (*b*)	1,703,000	1,855,000	1,576,000	1,569,000	1,873,000	2,878,000	2,414,000	2,725,000	2,115,000	2,188,000
Punjab (including Native States)	1,413,000	1,474,000	1,562,000	1,436,000	1,385,000	1,582,000	1,575,000	2,053,000	1,857,000	918,000
United Provinces (*c*)	1,489,000	1,461,000	1,392,000	1,241,000	1,347,000	921,000	1,158,000	1,586,000	1,551,000	834,000
Central India States	1,132,000	993,000	978,000	1,068,000	1,349,000	1,400,000	1,314,000	1,426,000	1,519,000	999,000
Rajputana States	428,000	438,000	389,000	464,000	465,000	263,000	393,000	470,000	421,000	244,000
Sind (including Native States)	250,000	259,000	259,000	214,000	279,000	346,000	296,000	341,000	336,000	169,000
Burma	187,000	195,000	204,000	198,000	167,000	186,000	233,000	290,000	270,000	190,000
Mysore	89,000	84,000	65,000	81,000	101,000	101,000	154,000	93,000	109,000	92,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	88,000	92,000	73,000	70,000	68,000
North-West Frontier Province (*e*)	61,000	48,000	54,000	32,000	33,000	56,000	56,000	59,000	60,000	26,000
Bengal (*f*)	151,000	149,000	161,000	166,000	169,000	63,000	51,000	87,000	90,000	88,000
Ajmer-Merwara	40,000	41,000	40,000	39,000	45,000	27,000	50,000	57,000	54,000	23,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	36,000	35,000	33,000	34,000	32,000
TOTAL	22,484,000	21,630,000	19,999,000	20,545,000	22,596,000	21,615,000	22,028,000	25,023,000	24,595,000	17,967,000

Yield (bales of 400 lbs each)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bombay (including Native States) (*a*)	1,762,000	1,039,000	1,282,000	1,661,000	1,450,000	695,000	1,520,000	1,614,000	1,773,000	1,010,000
Central Provinces and Berar	881,000	595,000	766,000	1,070,000	629,000	913,000	910,000	961,000	1,097,000	1,106,000
Hyderabad State	449,000	293,000	307,000	461,000	293,000	300,000	300,000	400,000	400,000	450,000
Madras (*b*)	157,000	198,000	162,000	180,000	235,000	335,000	471,000	308,000	245,000	357,000
Punjab (including Native States)	357,000	356,000	324,000	396,000	306,000	241,000	373,000	612,000	486,000	196,000
United Provinces (*c*)	639,000	268,000	426,000	384,000	348,000	251,000	428,000	484,000	486,000	262,000
Central India States	222,000	55,000	144,000	221,000	237,000	228,000	206,000	273,000	293,000	216,000
Rajputana States	201,000	91,000	80,000	148,000	143,000	73,000	125,000	132,000	166,000	66,000
Sind (including Native States)	155,000	135,000	101,000	104,000	97,000	124,000	123,000	135,000	116,000	51,000
Burma	36,000	29,000	41,000	32,000	28,000	32,000	46,000	54,000	42,000	27,000
Mysore	10,000	6,000	3,000	6,000	10,000	17,000	19,000	11,000	14,000	14,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	19,000	19,000	17,000	16,000	16,000
North West Frontier Province (*e*)	13,000	9,000	12,000	7,000	8,000	12,000	13,000	14,000	14,000	6,000
Bengal (*f*)	33,000	38,000	35,000	35,000	49,000	25,000	21,000	24,000	34,000	30,000
Ajmer-Merwara	19,000	10,000	9,000	13,000	20,000	12,000	26,000	15,000	15,000	2,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	11,000	10,000	12,000	12,000	10,000
TOTAL	4,934,000	3,122,000	3,692,000	4,718,000	3,853,000	3,288,000	4,610,000	5,066,000	5,209,000	3,819,000
Net Exports and Consumption (*g*)	4,854,579	3,782,401	4,200,150	4,928,000	4,303,000	3,985,000	4,483,000	5,913,000	4,889,000	5,000,000

(*a*) Includes also the State of Baroda. Estimates for non-reporting tracts have been added from 1909-10

(*b*) The estimates for Madras for 1906-07 relate only to *raiyatwari* villages; since that year estimates for *zamindari* and *whole inam* villages and Native States have also been included

(*c*) Includes the Native State of Rampur

(*d*) Included under Bengal

(*e*) Includes the Tochi and Kurram Agencies from 1913-14

(*f*) Includes Bihar and Orissa and Assam down to 1910-11 and the Hill Tippera State from 1906-07

(*g*) The exports as well as the mill consumption are for the year ending the 30th September up to 1910-11; from 1911-12 to 1914-15 they are for the year ending the 31st August; for 1915-16 they relate to the year ending June 1916. No reliable information exists as to the annual consumption outside the mills, but in 1911 it was settled in consultation with the Bombay Cotton Trade Association to adopt the conventional estimate of 450,000 bales. This figure has been included in the figure for each year shown against this item up to 1913-14. The consumption for 1914-15 was estimated at 1,000,000 bales and that for 1915-16 at 750,000 bales by the Association

Note.—Figures for 1915-16 are subject to revision

No. 9.—AREA AND YIELD OF JUTE IN EACH PROVINCE

Area (acres)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Bengal (*a*)	3,434,000	3,846,500	2,766,300	2,773,100	2,841,600	2,737,600	2,536,900	2,456,600	2,872,600	2,086,300
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	258,100	298,300	318,400	330,100	188,100
Assam	48,900	95,800	68,400	83,500	82,200	90,700	95,700	97,000	111,600	75,400
Cooch Bihar State	...	32,000	22,000	20,000	14,000	20,000	39,600	39,000	44,400	27,500
TOTAL	3,482,900	3,974,300	2,856,700	2,876,600	2,937,800	3,106,400	2,970,500	2,911,000	3,358,700	2,377,300

Yield (bales of 400 lbs each)

Province	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Bengal (*a*)	9,020,500	9,512,100	6,132,700	6,992,500	7,735,300	7,247,600	8,698,300	7,939,900	9,308,000	6,506,100
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	(*b*)	705,500	792,900	602,900	693,200	609,600
Assam	106,900	224,100	138,500	180,500	177,800	239,600	226,800	228,300	307,500	157,500
Cooch Bihar State	79,000	81,600	39,600	33,600	18,900	42,000	124,800	122,800	135,200	72,300
TOTAL (*c*)	9,206,400	9,817,800	6,310,800	7,206,600	7,932,000	8,234,700	9,842,800	8,893,900	10,443,900	7,345,500

(*a*) Includes Bihar and Orissa down to 1910
(*b*) Included under Bengal
(*c*) Excluding Nepal, for which no estimate of area or yield is available. The figures of imports from Nepal are, however, stated below so far as information is available :

	Bales		Bales		Bales
1906	61,000	1909	81,000	1912	96,000
1907	83,000	1910	79,000	1913	88,000
1908	88,000	1911	57,000	1914	88,000
				1915	83,000

No. 10.—AREA AND YIELD OF LINSEED IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Central Provinces and Berar	1,158,200	547,600	954,700	926,200	1,080,400	1,858,800	1,509,000	952,100	1,224,000	1,048,000
United Provinces (*a*)	315,000	57,500	194,700	308,400	472,800	848,800	493,500	240,600	266 000	305,000
	633,000	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*	*650,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	510,300	567,800	528,000	652,900	624,000	663,000
Hyderabad State	664,300	484,800	555,400	548,900	631,300	603,500	512,400	412,600	234,000	288,000
Bengal (*c*)	805,600	589,400	634,600	673,400	196,900	206,800	199,800	193,700	182,000	181,000
Bombay (including Native States)	167,100	151,100	158,600	134,200	194,700	205,300	171,900	173,100	126,000	147,000
Punjab	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	43,300	39,000	49,000	35,000
Total (*a*)	3,110,200	1,830,400	2,498,000	2,591,100	3,086,400	4,291,000	3,457,900	2,664,000	2,705,000	2,667,000
	633,000	*269,000*	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*	*650,000*
GRAND TOTAL	3,743,200	2,099,400	2,997,000	3,188,100	3,742,400	5,038,000	4,124,900	3,031,000	3,325,000	3,317,000

Yield (tons)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Central Provinces and Berar	106,200	23,500	90,900	90,300	124,500	139,000	141,800	70,700	80,000	83,000
United Provinces (*a*)	156,000	6,500	30,400	62,000	102,900	159,700	95,500	38,800	48,000	61,000
	113,000	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*	*130,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	112,500	125,200	104,700	149,700	102,000	136.000
Hyderabad State	28,600	13,600	17,200	18,400	30,400	26,800	17,300	16,500	9,000	12,000
Bengal (*c*)	114,600	85,900	72,500	124,200	30,700	39,200	37,400	34,200	26,000	28,000
Bombay (including Native States)	6,800	4,000	8,700	12,900	28,300	15,000	17,400	14,000	17,000	21,000
Punjab	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	3,300	5,000	3,000
Total (*a*)	312,200	133,500	219,700	307,800	429,300	504,900	414,100	327,200	287,000	344,000
	113,000	*30,000*	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*	*130,000*
GRAND TOTAL	425,200	163,500	297,700	427,800	571,300	644,900	542,100	386,200	397,000	474,000

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural ; hence they have been kept separate
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa down to 1909-10
(*d*) Not available

Note.—Figures for 1915-16 are subject to revision

No. 11.—AREA AND YIELD OF RAPE AND MUSTARD IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces (*a*)	153,400	96,800	136,800	176,900	146,200	176,200	145,000	150,400	190,000	183,000
	2,210,000	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*	*2,400,000*
Punjab (*b*) . .	1,402,400	842,800	1,158,900	1,329,900	1,089,000	1,414,100	887,800	1,002,900	1,047,000	1,117,000
Bengal (*c*) . .	2,026,500	1,889,100	1,854,900	2,278,300	1,370,700	1,317,500	1,325,400	1,312,600	1,303,000	1,322,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	765,700	780,100	723,300	751,900	681,000	725,000
Assam . . .	222,000	261,000	284,300	320,100	318,100	258,100	295,000	299,200	304,000	316,000
North-West Frontier Province .	218,800	121,000	226,900	91,700	85,100	94,200	75,700	141,300	114,000	105,000
Bombay (including Native States)(*e*) .	61,400	46,900	80,800	86,900	84,600	17,600	75,700	83,500	83,000	36,000
Sind (including Native States)(*f*).	87,900	63,100	120,400	69,700	76,200	54,000	43,800	365,000	428,000	163,000
Hyderabad State .	10,700	9,500	12,500	8,100	9,300	6,500	11,100	5,600	7,000	6,000
TOTAL (*a*) .	4,183,100	3,330,200	3,875,500	4,361,600	3,944,900	4,118,300	3,582,800	4,112,400	4,157,000	3,973,000
	2,210,000	*1,870,000*	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*	*2,400,000*
GRAND TOTAL .	6,393,100	5,200,200	6,028,500	6,630,600	6,315,900	6,990,300	5,955,800	6,266,400	6,507,000	6,373,000

Yield (tons)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces (*a*)	30,000	11,300	26,900	36,000	34,400	37,200	33,900	23,000	43,000	34,000
	424,000	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*	*450,000*
Punjab (*b*) . .	172,300	110,000	183,900	226,900	155,100	196,600	156,600	165,000	175,000	141,000
Bengal (*c*) . .	337,000	275,600	231,900	440,100	238,600	243,900	265,800	266,200	230,000	233,000
Bihar and Orissa .	(*d*)	(*d*)	(*d*)	(*d*)	168,800	171,900	143,500	165,700	98,000	138,000
Assam . . .	43,600	42,700	46,400	60,500	56,000	47,600	58,400	61,300	58,000	50,000
North-West Frontier Province .	19,400	12,300	28,600	7,900	9,500	12,100	7,200	15,900	16,000	14,000
Bombay (including Native States)(*e*) .	14,300	12,500	23,200	22,600	15,400	2,600	20,000	21,300	21,000	6,000
Sind (including Native States)(*f*).	12,400	6,400	23,400	10,100	11,100	4,700	4,600	42,000	48,000	17,000
Hyderabad State .	100	200	200	100	200	100	200	100	200	100
TOTAL (*a*) .	629,100	471,000	564,500	804,200	689,100	716,700	690,200	760,500	689,200	633,100
	424,000	*217,000*	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*	*450,000*
GRAND TOTAL .	1,053,100	688,000	987,500	1,270,200	1,250,100	1,325,700	1,241,200	1,087,500	1,219,200	1,083,100

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) Figures for years prior to 1913-14 exclude unimportant districts

(*c*) Includes Bihar and Orissa down to 1909-10

(*d*) Included under Bengal

(*e*) Includes also the State of Baroda; up to 1911-12 the estimates relate to chief rapeseed growing districts; those for other districts have been added from 1912-13

(*f*) Estimates for *jambo* (Eruca Sativa) grown in Sind have been added from 1913-14

Note.—Figures for 1915-16 are subject to revision

No. 12.—AREA AND YIELD OF SESAMUM (*Til or Jinjili*) IN EACH PROVINCE

Area (*acres*)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces (*a*)	309,200	329,800	322,000	481,300	438,900	375,000	317,200	378,400	372,000	298,000
	775,000	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*	*1,100,000*
Bombay (including Native States) (*b*)	1,049,500	992,700	979,500	1,037,400	994,800	548,900	793,300	851,200	1,055,000	800,000
Central Provinces and Berar	807,900	977,600	790,000	942,700	895,300	886,700	778,000	865,700	878,000	927,000
Madras (*c*)	556,900	647,000	685,900	718,900	573,200	887,200	823,700	809,300	861,000	890,000
Hyderabad State	493,700	510,600	511,900	597,300	677,700	663,900	649,100	612,000	599,000	546,000
Bengal (*d*)	496,300	419,400	453,400	494,800	489,100	271,800	264,800	241,000	251,000	248,000
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	214,600	223,700	219,700	206,000	205,000
Punjab (*e*)	95,500	84,100	164,700	175,600	148,700	92,100	156,800	144,100	222,000	126,000
Sind (including Native States)	55,900	55,600	80,500	67,000	88,300	58,200	72,300	91,300	86,000	25,000
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	11,900	(*k*)35,000	5,000
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	9,700	10,600	(*k*) 1,400	(*j*)	(*j*)
TOTAL (*a*)	3,864,900	4,016,800	3,987,900	4,515,000	4,306,000	4,008,100	4,089,500	4,226,000	4,565,000	4,070,000
	775,000	*900,000*	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*	*1,100,000*
GRAND TOTAL	4,639,900	4,916,800	4,987,900	5,415,000	5,206,000	4,808,100	4,989,500	5,076,000	5,565,000	5,170,000

Yield (*tons*)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces (*a*)	36,200	10,000	34,000	48,700	45,400	29,000	34,000	18,000	31,000	36,000
	90,000	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*	*90,000*
Bombay (including Native States) (*b*)	186,000	61,400	99,500	132,400	109,400	31,700	96,300	89,700	164,000	95,000
Central Provinces and Berar	70,400	55,400	59,900	91,900	76,400	72,300	60,900	69,400	82,000	93,000
Madras (*c*)	45,800	53,100	57,200	59,700	49,300	78,200	65,500	72,100	77,000	90,000
Hyderabad State	27,300	20,600	18,700	24,500	34,400	25,400	32,500	25,100	27,000	22,000
Bengal (*d*)	72,200	46,300	59,000	88,600	79,400	41,500	35,100	29,000	29,000	27,000
Bihar and Orissa	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	33,500	25,000	31,400	26,000	31,000
Punjab (*e*)	8,800	4,700	23,700	18,500	14,900	9,900	16,000	15,800	24,000	15,000
Sind (including Native States)	4,300	4,200	12,300	6,500	12,600	4,800	6,900	10,700	5,000	2,000
Ajmer-Merwara	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	100	(*k*) 1,000	(*i*)
Assam	(*g*)	(*g*)	(*g*)	(*g*)	(*f*)	1,300	1,800	(*h*) 200	(*j*)	(*j*)
TOTAL (*a*)	451,000	255,700	364,300	470,800	421,800	327,600	374,000	361,500	466,000	411,000
	90,000	*30,000*	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*	*90,000*
GRAND TOTAL	541,000	285,700	464,300	560,800	511,800	397,600	474,000	403,500	551,000	501,000

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates of the mixed crops of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Includes also the State of Baroda. Estimates for non-reporting tracts have been added from 1912-13
(*c*) The estimates for Madras for 1906-07 relate only to *raiyatwari* villages; since that year estimates for *zamindari* and whole *inam* villages have also been included
(*d*) Includes Bihar and Orissa down to 1910-11 and Assam for 1910-11
(*e*) Figures for years prior to 1913-14 exclude unimportant districts
(*f*) Included under Bengal
(*g*) Not available
(*h*) Early crop only
(*i*) Less than 100 ton
(*j*) Forecast discontinued
(*k*) Increase due to very good season

Note.—Figures for 1915-16 are subject to revision

No. 13.—AREA AND YIELD OF GROUNDNUT IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Madras (*a*) . .	511,000	601,800	718,700	740,100	667,300	806,000	924,200	1,605,200	1,866,000	1,441,000
Bombay (including Native States) (*b*)	111,000	129,800	133,700	162,300	185,800	269,300	242,700	254,100	278,000	232,000
Burma (*c*) . .	(*d*)	137,000	258,600	146,300	98,800	138,800	199,500	246,600	269,000	262,000
TOTAL .	622,000	868,600	1,111,000	1,048,700	951,900	1,214,100	1,366,400	2,105,900	2,413,000	1,935,000

Yield (tons) of nuts in shell

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Madras (*a*) . .	189,000	202,300	246,500	221,900	254,200	306,000	341,100	411,300	580,000	633,000
Bombay (including Native States) (*b*)	84,700	82,500	129,500	172,700	207,100	248,300	239,500	249,500	279,000	275,000
Burma (*c*) . .	(*d*)	67,700	119,700	64,700	41,900	51,400	89,300	88,000	88,000	103,000
TOTAL .	273,700	352,500	495,700	459,300	503,200	605,700	669,900	748,800	947,000	1,011,000

(*a*) The estimates for Madras for 1906-07 relate only to *raiyatwari* villages; since that year estimates for *zamindari* and whole *inam* villages have also been included
(*b*) Up to 1913-14 the figures related to chief groundnut growing districts; those for other districts have been added from 1914-15. Estimates for non-reporting tracts have been added from 1909-10
(*c*) The figures down to 1910-12 relate to the principal groundnut-growing districts. From 1912-13 estimates for other districts also have been included
(*d*) No information

Note.—The figures for 1915-16 are subject to revision

No. 14.—AREA AND YIELD OF INDIGO IN EACH PROVINCE

Area (acres)

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bihar and Orissa (*a*)	137,800	146,800	135,300	107,400	117,000	109,600	90,100	63,100	38,500	60,800
Madras . .	180,700	141,900	81,800	96,400	82,800	90,300	61,500	55,300	71,700	182,800
Punjab (*b*) . .	62,300	57,900	36,200	43,400	45,400	36,600	37,300	22,400	20,400	20,600
United Provinces (*c*)	40,400	47,300	30,600	41,900	31,200	29,400	26,900	24,400	12,300	42,300
Bombay and Sind (including Native States) . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	6,200	4,200	6,200
Bengal . .	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	1,000	1,000	1,200	1,300	1,600
TOTAL .	421,200	393,900	283,900	289,100	276,400	266,900	216,800	172,600	148,400	314,300

Yield (cwts) of dye

Province	1906-07	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16
Bihar and Orissa (*a*)	17,300	17,700	17,000	11,400	13,900	17,800	14,700	7,000	5,500	7,100
Madras . .	32,200	20,000	12,400	14,400	20,100	21,200	14,800	11,500	13,600	24,700
Punjab (*b*) . .	11,000	9,000	5,600	8,300	8,500	5,600	6,000	3,500	3,400	3,000
United Provinces (*c*)	5,100	5,600	3,800	5,200	3,500	3,000	3,500	3,000	1,500	4,000
Bombay and Sind (including Native States) . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,700	1,000	900
Bengal . .	(*e*)	(*e*)	(*e*)	(*e*)	(*e*)	100	100	100	200	200
TOTAL .	65,700	52,300	38,800	39,300	46,000	47,700	39,100	26,800	25,200	39,900

(*a*) Includes Bengal down to 1910-11
(*b*) Figures for years prior to 1913-14 exclude unimportant districts
(*c*) In estimating the yield in the United Provinces it is assumed that one-tenth of the whole area is annually set aside for seed
(*d*) No information
(*e*) Included under Bihar and Orissa

Note.—The figures for 1915-16 are subject to revision

No. 15.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE

Area (acres)

Province	Barley					Jawar					Bajra				
	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	5,163,000	4,591,000	4,376,000	4,576,000	5,020,000	1,633,000	2,169,000	2,063,000	2,413,000	2,546,000	2,880,000	2,618,000	2,188,000	2,770,000	2,806,000
Madras . .	3,000	3,000	3,000	3,000	(*d*)	5,166,000	5,220,000	5,790,000	5,102,000	(*d*)	3,384,000	3,606,000	3,273,000	3,482,000	(*d*)
Bihar and Orissa	1,340,000	1,261,000	1,305,000	1,287,000	1,314,000	95,000	94,000	129,000	107,000	103,000	67,000	74,000	75,000	73,000	73,000
Bombay . .	36,000	28,000	23,000	25,000	(*d*)	5,878,000	6,850,000	6,606,000	6,504,000	(*d*)	4,362,000	5,158,000	4,906,000	5,119,000	(*d*)
Sind . . .	19,000	20,000	28,000	31,000	(*d*)	389,000	602,000	689,000	636,000	(*d*)	415,000	1,141,000	1,110,000	1,090,000	(*d*)
Bengal . .	95,000	95,000	94,000	95,000	94,000	2,000	3,000	2,000	2,000	3,000	6,000	7,000	6,000	6,000	6,000
Punjab . .	1,339,000	1,007,000	970,000	1,308,000	1,040,000	554,000	1,212,000	1,248,000	1,276,000	1,001,000	1,155,000	2,677,000	2,829,000	2,738,000	1,907,000
C. P. and Berar .	(*b*)23,000	(*b*)16,000	(*b*)8,000	(*b*)11,000	(*d*)	4,048,000	3,991,000	3,919,000	4,299,000	4,954,000	117,000	154,000	146,000	146,000	185,000
Burma . .	...	...	...	...	...	472,000	492,000	531,000	479,000	452,000	247,000	240,000	225,000	172,000	184,000
Assam . .	1,000	1,000	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province.	296,000	214,000	291,000	422,000	314,000	53,000	95,000	103,000	120,000	40,000	76,000	205,000	193,000	239,000	72,000
Ajmer-Merwara .	(*b*)63,000	(*b*)59,000	(*b*)46,000	(*b*)63,000	52,000	(*b*)28,000	(*b*)61,000	(*b*)69,000	(*b*)77,000	86,000	(*b*)11,000	(*b*)31,000	(*b*)30,000	(*b*)39,000	31,000
TOTAL .	8,315,000	7,236,000	7,098,000	7,758,000	....	18,290,000	20,728,000	21,080,000	20,938,000	...	12,709,000	15,880,000	14,951,000	15,835,000	...

Yield (tons)

Province	Barley					Jawar					Bajra				
	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	(*a*)	(*a*)	1,679,000	2,048,000	2,259,000	355,000	598,000	227,000	630,000	665,000	601,000	611,000	269,000	612,000	620,000
Madras . .	(*a*)	(*a*)	(*a*)	(*a*)	(*d*)	(*a*)	943,000	1,082,000	963,000	(*d*)	(*a*)	551,000	535,000	597,000	(*d*)
Bihar and Orissa	579,000	523,000	557,000	426,000	482,000	(*a*)	(*a*)	(*a*)	(*a*)	33,000	(*a*)	(*a*)	(*a*)	(*a*)	27,000
Bombay . .	9,000	10,000	7,000	9,000	(*d*)	910,000	1,418,000	1,375,000	1,683,000	(*d*)	340,000	560,000	655,000	734,000	(*d*)
Sind . . .	5,000	7,000	10,000	11,000	(*d*)	105,000	196,000	202,000	221,000	(*d*)	106,000	253,000	181,000	168,000	(*d*)
Bengal . .	(*a*)	(*a*)	(*a*)	(*a*)	29,000	(*a*)	(*a*)	(*a*)	(*a*)	1,000	(*a*)	(*a*)	(*a*)	(*a*)	2,000
Punjab . .	382,000	280,000	288,000	377,000	228,000	68,000	163,000	119,000	118,000	109,000	97,000	315,000	302,000	346,000	150,000
C. P. and Berar .	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	986,000	980,000	918,000	1,274,000	1,645,000	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Burma . .	...	...	...	...	...	35,000	55,000	68,000	48,000	49,000	14,000	27,000	33,000	13,000	13,000
Assam . .	(*a*)	(*a*)	...	...	...	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province.	(*a*)	58,000	140,000	190,000	125,000	(*a*)	15,000	16,000	19,000	9,000	(*a*)	33,000	37,000	48,000	12,000
Ajmer-Merwara .	(*a*)	(*a*)	(*a*)	(*a*)	18,000	(*a*)	(*a*)	(*a*)	(*a*)	2,000	(*a*)	(*a*)	(*a*)	(*a*)	300
TOTAL (*c*) .	975,000	878,000	2,681,000	3,061,000	...	2,459,000	4,368,000	4,007,000	4,956,000	...	1,158,000	2,350,000	2,012,000	2,518,000	...

(*a*) Not available (*b*) Taken from Agricultural Statistics (*c*) Incomplete (*d*) Not yet reported

Note.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports or especially obtained from local authorities

[Continued on next page

No. 15.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE—*contd.*

Area (acres)

Province	Maize					Gram				
	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	1,791,000	2,205,000	2,136,000	2,376,000	2,612,000	6,873,000	5,707,000	3,037,000	5,343,000	6,083,000
Madras	118,000	134,000	124,000	154,000	(*f*)	135,000	138,000	166,000	134,000	(*f*)
Bihar and Orissa	1,661,000	1,699,000	1,714,000	1,492,000	1,656,000	1,052,000	915,000	1,079,000	1,205,000	1,402,000
Bombay	163,000	162,000	159,000	156,000	(*f*)	372,000	475,000	453,000	486,000	(*f*)
Sind	2,000	2,000	2,000	1,000	(*f*)	76,000	75,000	98,000	111,000	(*f*)
Bengal	95,000	97,000	92,000	95,000	96,000	177,000	184,000	198,000	182,000	177,000
Punjab	955,000	1,098,000	1,082,000	1,047,000	1,184,000	4,100,000	3,401,000	2,849,000	5,193,000	3,665,000
C. P. and Berar	(*d*) 144,000	(*d*) 150,000	(*d*) 151,000	(*d*) 156,000	(*f*)	(*c*) 818,000	(*c*) 808,000	(*c*) 823,000	(*c*) 852,000	(*c*)783,000
Burma	165,000	172,000	170,000	168,000	167,000	40,000	34,000	42,000	43,000	64,000
Assam	19,000	19,000	18,000	19,000	19,000	1,000	1,000	...	...	...
North-West Frontier Province	410,000	419,000	421,000	419,000	431,000	174,000	169,000	199,000	203,000	143,000
Ajmer-Merwara	(*d*) 62,000	(*d*) 68,000	(*d*) 67,000	(*d*) 71,000	60,000	(*d*) 26,000	(*d*) 9,000	(*d*) 1,000	(*d*) 21,000	19,000
TOTAL	5,523,000	6,157,000	6,079,000	6,073,000	...	13,818,000	11,707,000	8,950,000	13,757,000	...

Yield (tons)

Province	Maize					Gram				
	1911-12	1912-13	1913-14	1914-15	1915-16	1911-12	1912-13	1913-14	1914-15	1915-16
United Provinces	703,000	920,000	721,000	1,050,000	1,154,000	2,493,000	1,817,000	(*e*) 551,000	1,773,000	2,025,000
Madras	(*a*)	(*a*)	(*a*)	(*a*)	(*f*)	(*a*)	8,000	(*a*)	(*a*)	(*f*)
Bihar and Orissa	549,000	530,000	541,000	395,000	480,000	436,000	361,000	447,000	357,000	526,000
Bombay	27,000	54,000	60,000	72,000	(*f*)	39,000	84,000	61,000	86,000	(*f*)
Sind	1,000	1,000	1,000	1,000	(*f*)	1,000	10,000	9,000	11,000	(*f*)
Bengal	(*a*)	(*a*)	(*a*)	(*a*)	28,000	(*a*)	(*a*)	(*a*)	(*a*)	45,000
Punjab	366,000	413,000	441,000	283,000	464,000	1,126,000	735,000	578,000	1,289,000	454,000
C. P. and Berar	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	244,000	280,000	190,000	247,000	238,000
Burma	63,000	75,000	63,000	51,000	70,000	7,000	(*a*)	(*a*)	(*a*)	(*a*)
Assam	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	...	...	...
North-West Frontier Province	184,000	188,000	228,000	203,000	237,000	(*a*)	29,000	36,000	34,000	16,000
Ajmer-Merwara	(*a*)	(*a*)	(*a*)	(*a*)	6,000	(*a*)	(*a*)	(*a*)	(*a*)	2,000
TOTAL (*b*)	1,893,000	2,181,000	2,060,000	2,055,000	...	4,356,000	3,324,000	1,872,000	3,797,000	...

(*a*) Not available
(*b*) Incomplete
(*c*) Excludes gram sown with other crops
(*d*) Taken from Agricultural Statistics
(*e*) Crop poor owing to unfavourable season
(*f*) Not yet reported

Note.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports or especially obtained from local authorities

No. 16.—NORMAL AND ACTUAL RAINFALL (IN INCHES) IN EACH PROVINCE AND METEOROLOGICAL SUBDIVISION IN INDIA.

Provinces and Subdivisions	Normal rainfall	Actual rainfall									Variation of 1915 rainfall from normal	Percentage variation from normal
		1907	1908	1909	1910	1911	1912	1913	1914	1915		
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Per cent
United Provinces—												
United Provinces, East	39·5	25·72	29·86	42·02	41·49	41·96	33·46	30·39	38·02	53·7	+14·2	+36
United Provinces, West	37·9	25·77	37·38	42·23	42·62	33·13	34·86	23·30	39·89	37·4	— 0·5	— 1
Madras—												
Malabar	129·9	156·60	131·24	138·00	121·78	114·42	151·14	111·61	134·04	119·9	—10·0	— 8
Madras, South-East	39·7	47·38	30·64	36·15	36·35	32·24	34·81	35·89	37·93	38·8	— 0·9	— 2
Madras, Deccan	24·6	19·51	20·33	26·84	33·55	18·66	25·87	20·52	21·92	31·7	+ 7·1	+29
Madras Coast, North	42·3	35·64	36·35	38·28	49·63	36·25	40·11	36·91	43·02	61·5	+19·2	+45
Bihar and Orissa—												
Orissa	58·4	58·02	57·54	59·70	59·28	49·85	54·07	61·23	61·80	61·9	+ 3·5	+ 6
Chota Nagpur	52·5	56·60	47·69	55·07	47·88	54·53	44·81	63·24	43·11	39·3	—13·2	—25
Bihar	49·0	42·77	27·63	53·67	53·09	58·94	43·41	60·43	44·30	49·5	+ 0·5	+ 1
Bombay—												
Gujarat	32·4	33·75	35·00	34·86	35·82	13·73	41·89	41·30	39·73	16·7	—15·7	—48
Konkan	109·3	112·19	109·13	111·40	99·82	81·50	110·90	103·99	137·20	93·9	—15·4	—14
Bombay, Deccan	31·0	31·07	26·78	28·65	34·87	21·27	31·37	28·02	39·38	34·5	+ 3·5	+11
Sind	6·5	7·90	12·18	6·28	9·00	1·03	5·12	18·79	6·10	1·8	— 4·7	—72
Bengal—												
Eastern	75·2	75·19	66·31	96·66	94·76	100·85	79·76	88·96	69·39	80·7	+ 5·5	+ 7
Western		52·07	52·69	69·96	59·07	55·11						
Punjab—												
East and North	23·3	21·38	32·41	31·85	26·37	21·63	22·30	22·71	31·89	18·3	— 5·0	—21
South-West	9·5	9·62	17·88	11·51	9·27	9·25	8·51	12·59	18·67	4·9	— 4·6	—48
Central Provinces and Berar—												
Berar	32·8	30·32	35·07	31·23	40·59	23·78	25·93	33·93	40·75	36·5	+ 3·7	+11
Central Provinces, West	45·7	38·69	46·59	39·91	47·59	40·42	40·99	39·98	44·15	50·4	+ 4·7	+10
Central Provinces, East	52·4	48·39	59·93	50·39	56·46	55·11	54·89	47·72	54·55	55·2	+ 2·8	+ 5
Burma—												
Lower Burma	131·0	137·68	127·55	132·58	117·81	128·31	129·83	122·48	140·92	135·1	+ 4·1	+ 3
Upper Burma	44·8	33·89	44·08	47·21	48·49	43·30	43·67	43·47	49·54	46·7	+ 1·9	+ 4
Assam	97·9	96·81	89·01	89·26	105·20	117·14	101·28	105·89	87·03	112·3	+14·4	+15
North-West Frontier Province	16·2	18·51	27·61	18·65	22·95	20·00	15·78	14·66	30·30	15·0	— 1·2	— 7
Central India—												
Central India, West	33·7	26·41	32·64	34·08	37·85	25·80	32·71	30·22	32·94	27·0	— 6·7	—2
Central India, East	39·6	33·97	51·08	39·74	41·41	44·84	37·33	31·16	40·77	38·7	— 0·9	—2
Rajputana—												
Rajputana, West	13·2	15·27	26·32	18·29	12·35	5·84	12·53	10·10	12·54	6·9	— 6·3	—48
Rajputana, East	24·9	21·61	36·75	29·12	28·72	18·29	27·39	15·65	26·36	17·4	— 7·5	—30
Hyderabad—												
Hyderabad, North	34·2	27·83	32·87	30·02	43·24	24·94	23·39	27·10	42·70	40·8	+ 6·6	+19
Hyderabad, South	30·2	27·39	34·15	28·02	31·35	21·11	25·05	19·76	38·71	40·2	+10·0	+33
Mysore	36·5	36·23	27·48	41·14	43·85	33·94	44·02	32·40	33·88	37·7	+ 1·2	+ 3

APPENDIX I

METHOD OF FRAMING ESTIMATES OF CROPS

There are three factors necessary for framing an estimate of outturn, namely, the area, the standard normal outturn per acre, and the fraction representing the relation of the crop reported on to the normal crop per acre.

As regards area, there exists in the villages of most provinces an agency capable of reporting the acreage of crops with great accuracy, wherever the fields have been mapped and surveyed. The tracts for which statistics are ordinarily not obtainable are yearly diminishing in extent; but owing to the absence of maps or the non-existence of trained village establishments they still represent a considerable aggregate area. These tracts consist chiefly of permanently settled estates, lands held on privileged tenure, and unsurveyed areas. For these tracts the acreage as well as the outturn cannot be more than a rough estimate. Such estimates of areas, once framed, are liable to become stereotyped and repeated year after year without regard to the influence of exceptional seasons or changes in the economic condition of the tracts. In order to prevent this, provision has been made for the annual revision of these area estimates by careful comparison with the conditions prevailing in those adjoining areas of a similar character for which accurate information is available, and by means of such special enquiries as may be possible.

In dealing with the calculation of the areas under crops, two other matters demand consideration, namely, (1) whether the area returned should be the area sown or that successfully cropped, and (2) whether, when the forecast crop is sown mixed with other crops, it is preferable that the total area covered by the mixed crops should be exhibited, or that such area only should be shown as is estimated to represent the acreage covered by the forecast crop only. As regards (1) the general rule is that the returns should exhibit the areas actually sown whether the crop comes to maturity or not, the principle underlying this rule being that the failure of crop should affect not its area, but its outturn. An exception to this rule is, however, made when fields, owing to the failure of the first sowings, have been devoted to other crops. In this case the area first sown with the forecast crop may be omitted. As to (2) the areas covered by the several crops in a mixed field are estimated in various ways in the different provinces, and the estimates are based on formulæ prescribed by the provincial authorities in individual cases, as it has not been found practicable to prescribe one uniform method of calculation. For purposes of the forecasts the area to be returned must be the area covered by the forecast crop, exclusive of the area covered by the other crops with which it is mixed.

Next with regard to the standard normal outturn. A normal crop may be defined as "that crop which past experience has shown to be the most generally recurring crop in a series of years; the typical crop of the local area; the crop which the cultivator has a right (as it were) to expect, and with which he is (or should be) content, while if he gets more he has reason to rejoice, and if less he has reason to complain." Briefly, it is stated to be the average yield on average soil in a year of average character. This normal or average yield will not necessarily correspond with the average of a series of years' figures, which is an arithmetical average. The Agricultural Department in each province maintains a statement of the normal or average yield per acre of land of average quality (under the two major heads of irrigated and unirrigated land) for the several crops in each district. In order to test the accuracy of these standards of normal or average yield and to revise them, if necessary, a system of crop-cutting experiments is in force in all the provinces. Under this system plots of land of average quality are selected and the crops grown on them are cut and weighed in the presence of responsible officers of the District staff or of the Provincial Agricultural Department. These experiments have to be carried out every year in respect of all the principal crops, and in accordance with rules specially framed by the several provincial authorities. The results of the experiments are reported to the head of the provincial Agricultural Department, who on a careful scrutiny of all the reports received by him, and after such further investigations as he may deem necessary, revises or verifies the standards previously adopted for the districts or the province. This revision is ordinarily made once in five years.

The third factor—the fraction representing the relation of the crop reported on to the normal crop per acre—is what is known as the "anna estimate" or the "percentage estimate." In many parts of India the cultivators estimate the crop outturn in annas or sixteenths, as there are sixteen annas in a rupee. They take a certain number of annas to represent the normal outturn, and estimate the outturn of the year of report as so many annas higher or lower than that normal. But in some tracts sixteen annas express a bumper crop, while in others the same term expresses a normal crop, and the number of annas taken to represent a normal outturn varies between 12 and 16. Consequently the anna estimate of one tract is not always amenable to comparison or combination with that of another tract. The percentage estimate is the American system under which 100 is taken to denote a normal crop and the estimated outturn of the year of report is stated as a percentage of that crop. In 1897 a question arose as to whether the anna notation or the American notation should be used in making crop estimates, and it was strongly urged upon the Government of India that as the cultivators and village officers entrusted with the duty of collecting data for crop reports were mostly accustomed to the Indian system, *i.e.*, the anna notation, the adoption of any other system would tend to confuse the estimate. Local Governments and Administrations were, therefore, permitted to adopt such scale of notation as might be suited to local conditions, the object being to secure that the returns should be in terms of a normal crop. But since the anna standard thus adopted would not possess any fixed or uniform value, it was laid down that in published

forecasts the anna notation should not be used, the American notation being used in its stead, *i.e.*, 100 being taken to represent a normal crop and the estimated outturn being stated as a percentage of that crop, and the conversion of the anna estimate into the percentage estimate being made either by the district officer or by the provincial authorities.

When these three factors have been determined, they are multiplied into each other to arrive at the required quantitative estimate of outturn. Thus, if the area be 60,000 acres, the standard of normal outturn 500 lbs, and the percentage estimate 80, the required quantitative estimate would be $60{,}000 \times 500 \times \frac{80}{100} = 24{,}000{,}000$ lbs.

APPENDIX II

METHODS OF COLLECTING THE STATISTICS PROVINCE BY PROVINCE

United Provinces. (Total cultivated area 35,138,000 acres.)

The estimates prepared by the United Provinces include all the districts of the province, except Almora and Garhwal, for which the required particulars are not available as no regular village papers are kept up by patwaris (village accountants) in these two districts. The area is taken from the crop statements based on field-to-field inspections, which are compiled by patwaris and checked by higher revenue officers. The estimates of the standard yield are based on the results ascertained from crop-cutting experiments conducted annually in selected districts. The standards, which are separate for irrigated and unirrigated crops, are revised every five years on a consideration of the results of crop-cutting experiments, and are applied to the condition of the crops reported by district officers and selected land-holders whose number exceeds six hundred.

Madras. (Total cultivated area 34,493,000 acres.)

In the Madras Presidency, the estimates relate to all districts in which the respective crops are grown. Approximately two-thirds of the cultivated land in the Presidency is Government or *raiyatwari* land, and has been carefully surveyed. All the village officers therein are appointed and controlled by Government officials. In the ordinary course of his work the village accountant sends every month to the Revenue Inspector (the officer in charge of a group of villages varying in number) a detailed statement of the sowings in his village. For those crops for which forecasts are prepared, the Revenue Inspector, who is himself a touring officer, reports to his Tahsildar, the area in his range under that crop, with his estimates of the average yield expressed in so many annas of the normal crop, when outturns are required. The Tahsildar consolidates all these figures and reports the total direct to the Director of Agriculture with, in the case of outturn, his estimated yield (also expressed in annas of the normal). The remaining third of the Presidency is *zamindari* (consisting of large proprietary estates), of which only a part has been accurately surveyed, and for which somewhat similar returns are prepared and dealt with accordingly. In other cases the Tahsildar or Deputy Tahsildar estimates the area and yield as well as he can from his own knowledge, and from reports of the estate officials. The figures for these zamindari areas are included but shown separately in the reports sent by the Tahsildars to the Provincial Director of Agriculture. The Native States of Pudukkottai and Banganapalle send similar reports direct to the Director for cotton only. No other Native State in the Presidency prepares any crop forecast. Thus for each forecast return 232 separate reports are received in the Director's office, where they are scrutinized and tabulated. More accurate figures of areas cultivated are obtainable at the end of the year after all the village accounts have been checked. These figures are published later in the provincial Season and Crop Report. The figures reported by Tahsildars in their final forecasts—particularly those from zamindari areas—are checked by a comparison with the forecast reports and the season and crop reports of previous years and the returns from neighbouring Government areas, and thus an attempt is made to rectify obviously inaccurate reporting. Standard rates of outturn have been determined for each crop on a consideration of the latest crop-cutting experiments and of the results on the Government farms. The Director checks the rate of yield reported by Tahsildars by estimates received from non-officials interested in a particular crop.

Bombay and Sind. (Total cultivated area 29,696,000 acres.)

The estimates for the Bombay Presidency include all British districts and Native States where the respective crops are grown to any extent. In the British districts of the Presidency proper the area under different crops is ascertained in the first instance by village officers and recorded in village returns, which are checked by circle inspectors and other revenue officers, and compiled by the former for their circle and then for the taluka. The taluka figures are totalled up for each district in the office of the Director of Agriculture of the province. For Sind this work is done by local officers, and the Director receives district-by-district figures. The information received is for villages for which regular statistics are available, the proportion of reporting area being 91·4 per cent in the Presidency proper and 99·6 per cent in Sind. From 1909-10, however, estimates for the non-reporting areas have been made so far as possible and included in the table. In the case of Native States the acreage is estimated on the best local data available. The approximate numerical strength of the reporting agency is 188 in the Presidency proper, 60 in Sind, and 33 in the Native States. No standard of yield has yet been fixed. Local estimates of crop condition are converted to quantitative figures on the basis of a formula showing the average yield of crops, which has been adopted provisionally. This formula is now being revised, the revision being based on the ascertainment of actual yield in different parts of the Presidency by careful local enquiry by officers of the provincial Agricultural Department, who are tabulating the results and comparing them for the purpose. The unit of area in the formula is the district, and dry and irrigated crops are separately dealt with. Each year's estimate of the condition of crops is prepared by the mamlatdars (or mahalkaris where the taluk is sub-divided) from notes which they make and from reports from village accountants and circle inspectors. The estimate is sent direct to the Director of Agriculture, who, in the light of the general prospects of the season, makes the quantitative calculations. For Sind there are no formulæ, and all the necessary information is obtained from the district officers in the form of estimates on the basis of twelve annas for a normal crop, together with quantitative equivalents gathered from general experience. For the Native States condition estimates are obtained, and the formulæ for adjoining British districts are applied.

Note.—The cultivated area shown in the margin represents the average area actually sown with all crops in each province

Bihar and Orissa. (Total cultivated area 26,366,000 acres.)

The estimates for Bihar and Orissa relate to all the districts of the province where the respective crops are grown. Survey and settlement operations have been completed in all districts except three, and in these districts the settlement figures serve as a check on the estimates of acreage based on the information furnished by the police. In the absence of any Revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. In the district of Sambalpur, the acreages under crops are revised annually by the Land Records staff by field-to-field inspection. The system of making crop-cutting tests, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in the districts of this province for some twenty-two years, but sufficiently trustworthy figures of yield have not yet been obtained from these tests to enable Government to accept them as standards. The estimates, therefore, of yield given in the forecasts are based on standards adopted provisionally by the provincial Department of Agriculture on the basis of information obtained from other sources.

Bengal. (Total cultivated area 25,144,000 acres.)

The estimates for Bengal relate to all the districts of the Presidency where the respective crops are grown. In the absence of any revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. The system of making crop-cutting experiments, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Bengal for the last twenty-one years, but sufficiently trustworthy figures of yield have not yet been obtained from these cuttings to enable Government to accept them as standards. The quantitative estimates, therefore, of yield given in the forecasts are based on standards adopted provisionally on the basis of information obtained from other sources.

Punjab. (Total cultivated area 25,000,000 acres.)

The estimates for the Punjab relate to all the British districts in which the respective crops are grown. As regards the Native States of the province, reports on wheat and cotton are furnished by all the States in which the two crops are grown to any considerable extent. No estimates for any other crop are prepared by any Native State. The figures of area for all the British districts up to 1912-13 were based on actual measurements by the village revenue staff. Estimates of yield were recorded by district officers after personal enquiry from tahsildars and leading agriculturists. The total number of agriculturists consulted by the district officers and tahsildars must amount to several thousands. From 1913-14, however, this method is followed only in districts in which the respective crops are grown to a considerable extent. For other districts the provincial Director of Land Records prepares conventional forecasts based on the actual average area figures for the previous five years, and an assumed average outturn as determined by him to meet the character of the harvest.

Central Provinces and Berar. (Total cultivated area 24,738,000 acres.)

The estimates for the Central Provinces and Berar relate to all the British districts of the province in which the respective crops reported on are grown. As regards the Native States of the province, reports on wheat only are furnished by the two States of Khairagarh and Nandgaon. No information is available for any other State. The figures of acreage for cotton, sesamum, rice, and sugarcane are estimates based on reports furnished by the local officials of the Land Records staff. The figures for wheat and linseed represent the actual areas sown with these crops as disclosed by field-to-field inspection by patwaris. The reporting agency consists of 235 revenue inspectors with, on an average, 22 patwaris working under each inspector. Each tahsil has usually 4 revenue inspectors. Standards of outturn were framed for each crop from the results of crop-cutting experiments on selected fields under the supervision of responsible and selected officials during the years 1884-85 to 1887-88. These standards have been revised from time to time on the basis of the results of crop-cutting experiments since made, the last revision having been made in 1912. The yield expressed by the people in terms of annas in the rupee is converted into percentages, 13·3 annas, or a normal crop, being taken to be equal to 100. A full crop or 16 annas is denoted by 120, and a bumper crop or 20 annas by 150. All deductions based on the standards are made by the provincial Director of Land Records and Settlements from the year's figures furnished by the District officers, who are supposed to bear in mind the standards when estimating the yield of the season.

Burma. (Total cultivated area 14,211,000 acres.)

The estimates for Burma relate to all the districts of the province in which the respective crops reported on are grown. The figures for the districts in which the crops are grown to a considerable extent are based on regular reports, furnished by district officers, while those for the remaining districts are based on rough estimates prepared by the Commissioner of Settlements and Land Records. For the districts from which regular reports are received, the figures of area are obtained from the assessment rolls prepared by revenue surveyors. The original information about the yield is obtained from township officers, inspectors of Land Records, and from the more important of the Land Revenue subordinate officers. In this way the estimate of each district is based on the information furnished by some thirty or more persons. The figures of both area and yield are tabulated by the Superintendent of Land Records and checked by the District officer. The Commissioner of Settlements and Land Records compares the estimated yield with a standard representing the normal yield, which was fixed after an extensive series of experimental crop-cuttings by settlement officers.

Assam, (Total cultivated area 5,872,000 acres.)

The estimates for Assam relate to all the districts in which the respective crops reported on are grown to any extent, excluding some of the unimportant hill districts in certain cases. The information is received from district officers, who in their turn obtain figures from mandals (headmen) in the case of the temporarily-settled areas and from zamindars in the case of the permanently-settled tracts. These figures are said to be checked by the sub-divisional and district officers, but, except where the district officer is himself able to do it, there is no valid check at all, and sometimes figures returned by the district officers are more or less inaccurate and inconsistent.

North-West Frontier Province. (Total cultivated area 2,384,000 acres.)

The estimates for the North-West Frontier Province relate to all the districts of the province in which the respective crops reported on are grown, including the Tochi agency in the case of wheat, cotton, and sugarcane, and the Kurram agency in the case of wheat and cotton. The figures of area are based on actual measurements made by the patwaris in their field-to-field inspection in each harvest. They are further checked by higher revenue officers. The estimates of the standard yield are based principally on data derived from a large number of crop-cutting experiments made during the progress of settlement operations. They were framed for each assessment circle, which is the unit of area, and separately for lands irrigated by canals, by wells, for alluvial (*sailab*) lands, and for lands entirely dependent on rain. The standards are applied to the estimates of condition of crops received from the district officers who frame their estimates in consultation with local agriculturists. The exact number of agriculturists consulted by the district officers is not available, but it must necessarily be several hundreds.

Ajmer-Merwara. (Total cultivated area 338,000 acres.)

The estimates for Ajmer-Merwara relate to the whole of the district. So far as *khalsa* * *jagir* and minor *istamrari* villages are concerned, the patwari is responsible for making field-to-field inspections of every village in his circle at each harvest. These inspections commence on 1st September for the autumn harvest and on 1st February for the spring harvest. The patwari notes down the results of his local inquiries and inspections in his field book. A certain percentage of the entries made by the patwari is checked and corrected, when necessary, by the girdawar or kanungo, who also inspects the crops at each harvest. The tahsil officers further test a certain number of entries, and the sub-divisional officer also makes a general inspection of crops at each harvest. As soon as the inspection of the harvest is complete an abstract statement of area and outturn is compiled separately for each girdawar's circle and tahsil, and these statements are then consolidated for the three sub-divisions in the district office. An assumed normal outturn per acre for each crop has been fixed at settlement. Crop estimates are annually made by the revenue officers and the results recorded. These sets of figures give a useful check on the outturn estimates made by the patwaris. The exact area sown in the sub-divisions is obtained from the abstract statements. In the large *istamrari* estates the preparation of the field books is done by the estate officials. These field books contain fairly accurate information in regard to wheat, the outturn of which in maunds is generally appraised for the purpose of payment of the cultivators' rent; but as regards cotton and sesamum the figures are conjectural, as no crop-cutting experiments are made, the rents being charged in cash. The Government agency does not supervise the collection of figures in large *istamrari* estates.

Central India.

Estimates are framed for wheat and cotton. The methods differ with different States. In most States the acreage returns are prepared by tahsils from the field measurements of the patwaris and then compiled for the whole State. In some cases the outturn estimates are similarly compiled after check on the spot by the higher revenue officials in consultation with the cultivators; in others they are merely an approximation from the acreage figures; in a few States fields are selected in the different circles as bearing an average yield, the crop is cut and weighed, the outturn for the circle is calculated from the result, and the totals of the circles form the return for the State. Finally, each Political Agent compiles the returns of the States in his political charge into an Agency return, each of which is shown separately in the return for Central India.

Rajputana.

The estimates for wheat and cotton furnished by the States in Rajputana are generally defective in consequence of the absence of figures for unsurveyed areas and privileged tenures in many cases.

Hyderabad.

The estimates for wheat, cotton, and oilseeds furnished by the Hyderabad State excluded until 1902-03 jagir and other revenue-free lands or privileged tenures; since then estimates for these areas have been procured as far as possible and included in the statement.

Mysore. (Total cultivated area 6,207,000 acres.)

The estimates furnished by the Mysore State relate to all the districts of the State in which the respective crops are grown. As regards area the information is based on the entries made by the *shanbog* (village accountant) in his crop inspection book and checked by the higher revenue officers. The outturn is noted by the *shanbog* in terms of annas (16 annas being taken for a normal or 100 per cent crop) from which the total yield is determined by reference to the standard normal outturn per acre fixed for each taluk. The figures are finally scrutinized and consolidated in the Revenue Commissioner's office.

---

* *Khalsa* villages are those which pay full revenue to Government

APPENDIX III

DATES PRESCRIBED FOR THE ISSUE OF THE ALL-INDIA FORECASTS OF CROPS BY THE DEPARTMENT OF STATISTICS, INDIA

RICE—

1st forecast	October	20
2nd „	December	20
Final „	February	20

WHEAT—

1st forecast	December	30
2nd „	March	15
Final „	May	30

COTTON—

1st forecast	August	15
2nd „	October	15
3rd „	December	15
Final „	February	15

LINSEED, RAPE AND MUSTARD—

1st forecast	January	1
2nd „	March	15
Final „	June	1

SESAMUM (*til or jinjili*)—

1st forecast	September	1
2nd „	October	20
Final „	January	15
Supplementary forecast	April	

GROUNDNUT—

1st forecast	October	20
Final „	February	15

INDIGO—

1st forecast	October	15
Final „	December	20

SUGARCANE—

1st forecast	August	20
2nd „	October	20
Final „	February	16

INDEX.

	Pages.
American notation	20, 21
Anna estimate	*ib.*
Area—	
Bajra (*Pennisetum typhoideum*)	17
Barley (*Hordeum vulgare*)	*ib.*
Cotton (*Gossypium sp.*)	3, 6, 12
Gram (*Cicer arietinum*)	18
Groundnut (*Arachis hypogæa*)	4, 6, 16
Indigo (*Indigofera Sumatrana and I. arrecta*)	*ib.*
Jawar (*Sorghum vulgare*)	17
Jute (*Corchorus sp.*)	3, 6, 13
Linseed (*Linum usitatissimum*)	*ib.*
Maize (*Zea mays*)	18
Rape and Mustard (*Brassica sp.*)	3, 6, 14
Rice (*Oryza sativa*)	2, 6, 9
Sesamum (*Sesamum indicum*)	4, 6, 15
Sugarcane (*Saccharum officinarum*)	2, 6, 11
Tea (*Camellia theifera*)	*ib.*
Wheat (*Triticum sativum*)	2, 6, 10
Area of crops, how ascertained	20, 22—24
Bajra—	
Area	17
Yield	*ib.*
Barley—	
Area	17
Yield	*ib.*
Charts illustrating the growth of production of crop	*frontispiece*
Cotton—	
Area	3, 6, 12
Consumption	3, 12
Net exports	*ib.*
Yield	3, 6—8, 12
Crop-cutting experiments	20
Dates of publication of forecasts	25
Development of the estimates	1
Gram—	
Area	18
Yield	*ib.*
Groundnut—	
Area	4, 6, 16
Yield	4, 6—8, 16
Indian Notation	20, 21
Indigo—	
Area	4, 6, 16
Yield	4, 6—8, 16
Jawar—	
Area	17
Yield	*ib.*
Jute—	
Area	3, 6, 13
Yield	3, 6—8, 13
Linseed—	
Area	3, 6, 13
Yield	3, 6—8, 13
Maize—	
Area	18
Yield	*ib.*
Method of framing estimates of crops	20, 21
Methods of collecting statistics	22—24
Mixed crop, treatment of—	20
Mustard (see Rape and Mustard)	
Normal crop, definition of—	20
Normal rainfall	19
Normal yield per acre	8
Notation for making crop estimates	20, 21
Percentage estimate	*ib.*
Rainfall, normal and actual	19
Rape and Mustard—	
Area	3, 6, 14
Yield	3, 6—8, 14
Rice—	
Area	2, 6, 9
Yield	2, 6—8, 9
Season, leading features of—	1—4
Sesamum—	
Area	4, 6, 15
Yield	4, 6—8, 15
Source and scope of the estimates	1
Standard normal outturn	20
Sugarcane—	
Area	2, 6, 11
Yield	2, 6—8, 11
Tea—	
Area	2, 6, 11
Yield	2, 6, 7, 11
Wheat—	
Area	2, 6, 10
Yield	2, 6—8, 10
Yield—	
Bajra	17
Barley	*ib.*
Cotton	3, 6—8, 12
Gram	18
Groundnut	4, 6—8, 16
Indigo	*ib.*
Jawar	17
Jute	3, 6—8, 13
Linseed	*ib.*
Maize	18
Rape and mustard	3, 6—8, 14
Rice	2, 6—8, 9
Sesamum	4, 6—8, 15
Sugarcane	2, 6—8, 11
Tea	2, 6, 7, 11
Wheat	2, 6—8, 10
Yield per acre—	
Cotton	7
Groundnut	*ib.*
Indigo	*ib.*
Jute	*ib.*
Linseed	*ib.*
Normal	8
Rape and Mustard	7
Rice	*ib.*
Sesamum	*ib.*
Sugarcane	*ib.*
Tea	*ib.*
Wheat	*ib.*

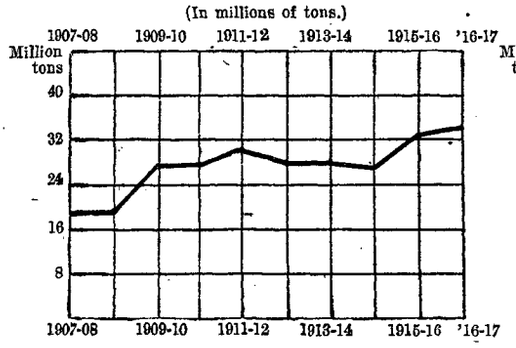
CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
8, HASTINGS STREET

Yield of certain principal crops from 1907-08 to 1916-17.

FOOD CROPS

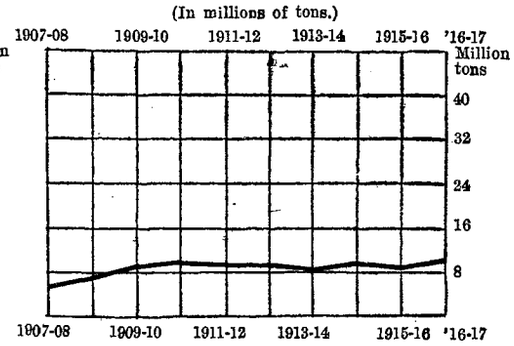
Rice

(In millions of tons.)



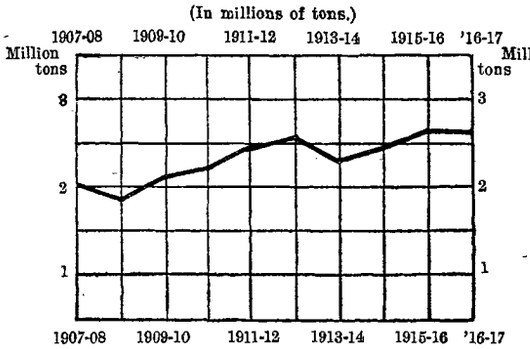
Wheat

(In millions of tons.)



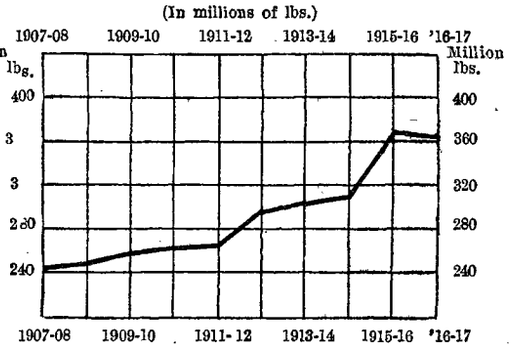
Sugarcane

(In millions of tons.)



Tea

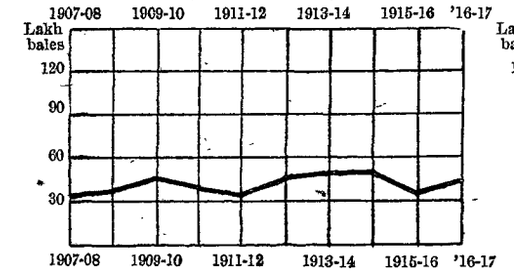
(In millions of lbs.)



FIBRES

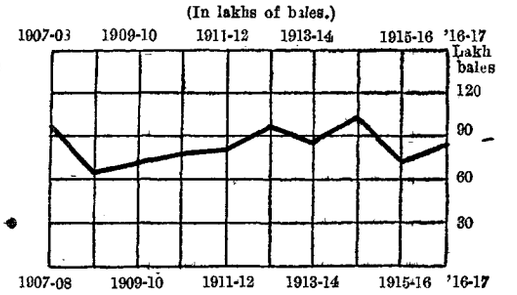
Cotton

(In lakhs of bales.)



Jute

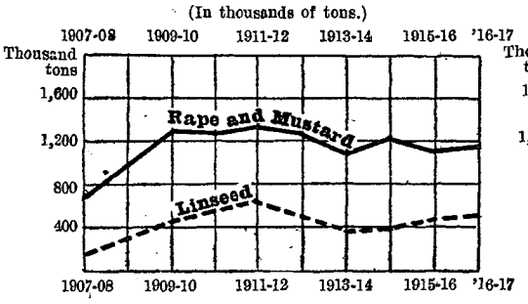
(In lakhs of bales.)



OILSEEDS

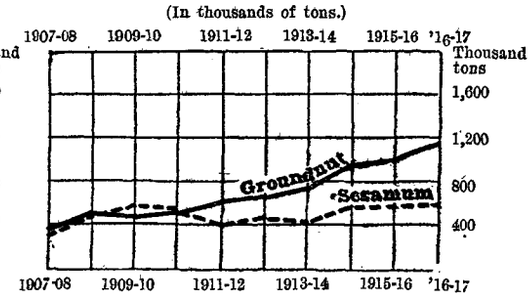
Rape and Mustard and Linseed

(In thousands of tons.)



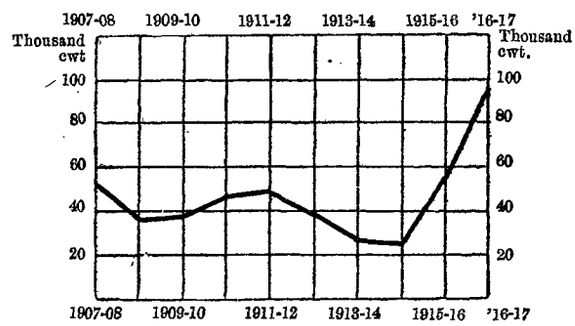
Sesamum and Groundnut

(In thousands of tons.)



INDIGO (DYE)

(In thousands of cwts.)



NINETEENTH ISSUE

DEPARTMENT OF STATISTICS, INDIA

ESTIMATES

OF

AREA AND YIELD

OF

Principal Crops in India

1916-17

Published by order of the Governor-General in Council

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1917

Price Eight Annas.

CONTENTS

Introductory Note

	Pages.
Source and scope of the estimates	i
Leading features of the season in respect of each crop	1—4
Charts illustrating the increase or decrease in yield of each crop in the ten years, 1907-08 to 1916-17	*frontispiece*

Tables

No.				
1.	Abstract table—Area and Yield of each crop			6
2.	Yield per acre of each crop in each province			7—8
3.	Standard or Normal Yields per acre of those crops for which forecasts are prepared			8
4.	Detailed table—Area and Yield of Rice in each province			9
5.	Ditto	ditto	Wheat	10
6.	Ditto	ditto	Sugarcane	11
7.	Ditto	ditto	Tea	*ib.*
8.	Ditto	ditto	Cotton	12
9.	Ditto	ditto	Jute	13
10.	Ditto	ditto	Linseed	*ib.*
11.	Ditto	ditto	Rape and Mustard	14
12.	Ditto	ditto	Sesamum (til or jinjili)	15
13.	Ditto	ditto	Groundnut	16
14.	Ditto	ditto	Indigo	*ib.*
15.	Supplementary table—Area and Yield of Barley, Jawar, Bajra, Maize, and Gram in each province			17—19
16.	Normal and actual Rainfall in each province			20
	Appendix I.—Method of framing estimates of crops			21—22
	Appendix II.—Methods of collecting the statistics province by province			23—26
	Appendix III.—Dates prescribed for the issue of the all-India forecasts			27
	Index			28

Estimates of Area and Yield of Principal Crops in India, 1916-17

INTRODUCTORY NOTE.

The present issue is the nineteenth of the series and relates to the area and yield of the principal crops for which estimates were made in 1916-17. It is the fourth of the new series that was commenced in 1913-14.

Source and scope of the estimates.

The periodical estimates or forecasts of certain crops are compiled from local returns and issued by this Department. The general practice is to issue a preliminary forecast, a second estimate, and a third or final estimate—fuller and more precise in data than the two former forecasts. The dates prescribed for the issue of the forecasts by this Department are given in Appendix III. The figures in the tables in this volume are those given in the final forecasts. They show for the last ten years the area sown with, and the estimated yield of, rice, wheat, sugarcane, tea,* cotton, jute, linseed, rape and mustard, sesamum, groundnut, and indigo. The rates of yield per acre of these crops in each of the last five years are shown in table No. 2, and the normal yields per acre in table No. 3.

Gradual development.

The estimates for these crops did not, especially in the earlier years of forecasts in India, relate to all the producing areas, but only to those tracts where the respective crops were grown on an extensive and commercial scale. Tracts of minor importance have been added gradually, as will be seen from the tables and the footnotes thereto. It should, therefore, be remembered that, owing to this gradual development, the estimates in the forecasts for earlier years are not altogether strictly comparable with those for later years, as is the case with the agricultural statistics of British India, published in Volume I of Agricultural Statistics of India. The increase in this respect, however, between the year under report as against the three previous years is so small as to be negligible and to afford a comparison of the estimates of the year (1916-17) with those of the three preceding years. At present the estimates for cotton, wheat, and jute relate to all the tracts in India where these crops are grown to any extent, excluding certain unimportant outlying tracts, such as Baluchistan, Kashmir, Nepal, and Sikkim. For other crops, however, the estimates, though relating to all the British provinces where they are grown to any considerable extent (excepting Burma in the case of sesamum), still exclude the Native States, except those in the Bombay Presidency and the States of Hyderabad and Baroda in certain cases. Further details regarding the reporting tracts are given in the paragraphs below, in footnotes to the tables, and in Appendix II on pages 23-26. It may be noted that, owing chiefly to causes already mentioned, the figures given in this volume do not agree in some instances with those in the Agricultural Statistics of India.

Estimates, so far as available, for certain other staple crops, namely, barley, jawar, bajra, maize, and gram, have been shown in a supplementary table (No. 15), the figures being taken from the provincial Season and Crop Reports or specially obtained from local authorities.

Leading features of the season.

The monsoon of 1916 was particularly good; it arrived early and continued late, the distribution of rain being remarkably uniform. Thus there was ample moisture in the land for the maturing of the autumn crops and for providing a seed-bed for those crops which are harvested in the spring. The winter rains, notwithstanding the beneficial showers received in places during February, were much below normal. The crops were generally better than those of 1915-16, except in regard to sugarcane and tea, and the outturn was above the average of the pre-war quinquennial period, except in regard to cotton, jute, and rape and mustard. Conditions with regard to each crop are stated in the following paragraphs. Statistics of normal and actual rainfall are given in table No. 16.

* For the tea crop no forecast is prepared; the figures are taken from the Annual Report on the Production of Tea in India published by this Department.

Rice.

Rice is generally regarded as a winter crop, being mainly harvested in December and January. It is sown in the months from May to August.* There are two other varieties of comparatively small importance, namely, autumn rice and summer rice. Autumn rice is sown in May and June and harvested in September, and summer rice is sown in January and February and harvested in May and June. The provinces to which the estimates for rice now relate are Bengal, Bihar and Orissa, Madras, Burma, the United Provinces, the Central Provinces and Berar, Assam, Bombay, Sind, and Coorg. These tracts comprise 99 per cent of the total rice area of British India. The only Native States for which estimates for rice are prepared are those in the Bombay Presidency. The total area under rice in all these tracts in 1916-17 was reported as 79,700,000 acres as compared with 78,165,000 acres in the preceding year. Heavy rain and floods damaged the crop in Assam, Bombay, and the Central Provinces, and the autumn crop in Bengal and Bihar and Orissa, otherwise the season was, on the whole, favourable. The total estimated yield was 34,079,000 tons as against 32,831,000 tons in 1915-16. To this figure should be added some 325,000 tons in respect of other British provinces† (containing about 757,000 acres under rice), for which no forecasts are made. It may be noted that the estimates for 1916-17 of both area and yield are the highest on record.

Wheat.

Wheat, which is a *rabi* (spring) crop in India, is sown from October to December and is harvested from March to May. The provinces and states to which the estimates for this crop relate are the Punjab, the North-West Frontier Province, the United Provinces, Ajmer-Merwara, Delhi, the Central Provinces and Berar, Bombay, Sind, Bengal, Bihar and Orissa, Central India, Rajputana, Hyderabad, and Mysore. These tracts contain practically the whole of the area under wheat in India. The total area under wheat in 1916-17 was reported to be 32,940,000 acres, which exceeds the area of the preceding year by 2,620,000 acres or 9 per cent. The condition of the crop was good except in parts of the unirrigated areas in the Punjab and Delhi. The unsettled weather in April and May slightly affected the quality of the crop and caused some discolouration of the grain in Northern and Central India. The total estimated yield was 10,158,000 tons, which is above the yield of 1915-16 by 1,506,000 tons or 17 per cent. As in the case of rice, the figures for 1916-17 for wheat also are the highest on record. An addition of some 136,000 tons should be made to the estimated yield in respect of other tracts‡ (containing about 442,000 acres under wheat), for which no reports are made.

Sugarcane.

The sugarcane crop is planted from February to May and is harvested from November to January. The provinces to which the reports on this crop relate are the United Provinces, Bihar and Orissa, Bengal, Assam, the Punjab, the North-West Frontier Province, Bombay (including Sind), Madras, and the Central Provinces and Berar. These tracts contain 99 per cent of the total area under sugarcane in British India. Reports are also received from the Native States in the Bombay Presidency (including the Baroda State). No report is received from any other Native State. The total reported area (2,414,000 acres) under sugarcane in 1916-17 was 1 per cent above that of the preceding year. The crop was good except in certain parts of the United Provinces and Bengal, where it was damaged to some extent by excessive rainfall and floods. The estimated yield (2,626,000 tons) was slightly below the final figure (2,634,000 tons) of the preceding year. To this figure should be added approximately 25,000 tons in respect of other British provinces§, for which no separate estimates are made.

Tea.

The provinces where tea is grown are Assam, Bengal, Madras, the United Provinces, the Punjab, Bihar and Orissa, Burma, and the State of Travancore. The total area under tea in 1916 was reported to be 651,200 acres, which is 2·5 per cent greater than that in the preceding year. Conditions at the beginning of the season were somewhat disappointing, and it was not until the season had considerably advanced that the weather became favourable for its growth. Exceptionally good yields were obtained from all districts, except Cachar and

* Rice is sown to a very large extent in Madras (especially in the south) from September to December and again to a fair extent in February and March.

† Punjab, North-West Frontier Province, Delhi, and Ajmer.

‡ Burma, Madras, and the Kashmir State.

§ Burma, Delhi, and Ajmer.

Sylhet, during August and September, but from then onwards the outturn steadily decreased. In parts of Cachar heavy floods occurred during October, and caused a great deal of damage. The total production of manufactured tea (both black and green) was reported to be 368,528,000 lbs in 1916 as against 371,837,000 lbs in the preceding year.

Cotton.

The total reported area under cotton was 21,212,000 acres in 1916-17 as against 17,746,000 acres in 1915-16. The area increased almost everywhere, owing mainly to the stimulus of high prices obtained in the preceding year. The crop was, however, adversely affected by the heavy and continuous rain of September and October, particularly in the Central Provinces, the United Provinces, Sind, and Bengal. The total estimated outturn was 4,273,000 bales of 400 lbs each, which is 535,000 bales or 14 per cent larger than the final figure of 1915-16. The marginal statement compares the estimates of yield for the last three years with the sum of net exports and internal consumption (in thousands of bales). It may be noted, however, that while the statistics of exports and consumption take into account stocks carried from year to year, the estimates of yield refer to the years specified.

	Thousand bales		
	1914-15	1915-16	1916-17
Net exports	2,118	2,486	2,204
Mill consumption	1,771	1,873	1,806
Consumption outside mills (conjectural)	1,000	750	750
Total	4,889	5,109	4,760
Estimate of yield	5,209	3,738	4,273
Excess (+) or deficit (−)	+320	−1,371	−487

There are, it may be remembered, two crops of cotton grown in India, namely, the early and the late. Early cotton grows principally in northern and central India, and late cotton largely in southern and western India. Taking both the crops together, the sowing season extends from March to August and the harvesting season from October to April. In parts of Southern India sowings continue till October and harvesting till July. The estimates given above relate to all the cotton-growing provinces and States in India.

Jute.

Jute is an autumn crop, being sown from March to May and harvested in August and September. The provinces where it is grown are Bengal including the Cooch Bihar State, Bihar and Orissa, and Assam. It is also grown to a small extent in the Nepal State, but no reliable information is available for that State. The total reported area under jute in 1916 (2,702,700 acres) was above that of the preceding year by 14 per cent, and the estimated yield (8,305,600 bales of 400 lbs each) rose by 13 per cent. The increase in area was due to the rise in prices in the preceding year. The crop was adversely affected by excessive rain in certain districts of Bihar and Orissa. The area and yield of jute in 1917 are estimated to be 2,729,700 acres and 8,839,900 bales respectively. The sum of exports and internal consumption, both in and outside the mills, is compared, at the bottom of table No. 9, with the estimated yield for the last ten years.

Linseed.

Linseed is a *rabi* (spring) crop, being sown from August to October and harvested from January to April. The provinces to which the estimates for linseed relate are the United Provinces, the Central Provinces and Berar, Bengal, Bihar and Orissa, the Punjab, and Bombay. These tracts comprise 98·9 per cent of the total area under linseed in British India. Reports are also made by the State of Hyderabad and by the States in the Bombay Presidency. No report is received from any other Native State. The total area under linseed reported by all the reporting tracts in 1916-17 was 3,532,000 acres, which is 6 per cent above the final figure of the preceding year. The condition of the crop was, on the whole, good, except in Bengal, where the crop was at first adversely affected by heavy rainfall and later by drought. The total estimated yield (520,000 tons) was larger than that of the preceding year by 9 per cent. To this figure should be added some 5,000 tons for other British provinces,* for which no reports are made.

Rape and mustard.

Rape and mustard are also *rabi* (spring) oilseeds, being sown from August to October and harvested from January to April. The provinces from which reports are received are the Punjab, Bengal, Bihar and Orissa, Assam, the United Provinces, the North-West Frontier Province, Bombay, and Sind. These tracts contain 99·2 per cent of the total area under rape and mustard in British

* Assam, Delhi, Ajmer, Madras, and Burma.

India. Reports are also received from the States of Hyderabad and Baroda and from the States in the Bombay Presidency. No report is received from any other Native State. The total area under rape and mustard reported by all the reporting tracts in 1916-17 was 6,440,000 acres, as against 6,437,000 acres in the preceding year. The crop was generally good except in Assam where it suffered through drought. The total estimated yield (1,181,000 tons) was 7 per cent above the final figure of the preceding year. To this figure should be added some 9,000 tons in respect of other British provinces,* for which no reports are made.

Sesamum.

Sesamum is mainly a *kharif* (autumn) crop, being generally sown from May to July and harvested from October to December; but in parts of Southern India sowing continues till September or October and harvesting till March or April. A *rabi* or summer variety is also grown in certain tracts; this is sown in January and February and is harvested in May to July. The provinces to which the estimates for sesamum relate are the Central Provinces and Berar, Bombay, Sind, Madras, the United Provinces, Bengal, Bihar and Orissa, the Punjab, and Ajmer-Merwara. These tracts contain about 78 per cent of the total area under sesamum in British India. Reports are also received from the Native States of Hyderabad and Baroda and those in the Bombay Presidency. No report is received from any other Native State or from Burma. The total reported area under sesamum in 1916-17 was 5,015,000 acres against 5,108,000 acres in the preceding year. Heavy and continuous rain in September and October adversely affected the crop in almost all the important sesamum-growing provinces, particularly in the Central Provinces and Berar, Bengal, and in certain parts of the United Provinces and the Bombay Presidency. The early crop of Bengal suffered through a deficiency of rainfall at the beginning of the season. The total estimated yield was 493,000 tons as against 482,000 tons in 1915-16, an increase of 2 per cent. An addition of approximately 23 per cent or 113,000 tons should be made to this figure in respect of other British provinces† (containing an aggregate area of about 1,150,000 acres under sesamum), for which no reports are made.

Groundnut.

The groundnut crop is sown from May to August and is harvested from November to January. The provinces to which the estimates for this crop relate are Madras, Bombay (including Native States), and Burma, these being the provinces where groundnut is grown to a considerable extent. The total area under groundnut in these three provinces in 1916-17 was reported as 2,317,000 acres, which is 38 per cent more than the figure of the preceding year, the estimated yield (1,147,000 tons) being 8 per cent in excess of last year's. The crop was damaged by the abnormally heavy rains, especially in the Carnatic (Madras) and in some places of the Bombay Deccan.

Indigo.

The indigo crop is sown from February to July and is harvested from August to November. The provinces to which the estimates for indigo relate are Bihar and Orissa, Bengal, the United Provinces, the Punjab, Madras, Bombay, and Sind. These tracts contain practically the whole area under indigo in British India. No report is received from any Native State, except the State of Khairpur in Sind. The total reported area (756,400 acres) in 1916-17 was 114 per cent greater than that of the preceding year. The season was not, on the whole, favourable for the crop, except in the Punjab, Bombay, and Sind. Heavy rainfall and floods adversely affected the crop in the United Provinces and in parts of Bihar and Orissa and Madras. The total estimated yield of dye was 95,500 cwts, which was greater than the figure of the preceding year by 73 per cent.

G. FINDLAY SHIRRAS,
Director of Statistics.

DEPARTMENT OF STATISTICS, INDIA,
Calcutta, September 25, 1917.

---

* Central Provinces and Berar, Madras, Burma, Delhi, and Ajmer.
† Burma, Assam, North-West Frontier Province, and Coorg.

TABLES

Note.—The rates of yield per acre of the crops tabulated in tables Nos. 4 to 14 are given in table No. 2.

No. 1.—ABSTRACT TABLE—AREA AND YIELD OF EACH CROP

Area (acres)

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	Average 1910-11 to 1914-15	1912-13	1913-14	1914-15	1915-16	1916-17
Rice . . .	50,855,000	50,067,000	54,942,000	69,318,000	71,623,000	75,425,000	76,625,000	78,165,000	79,700,000
Wheat . .	22,649,000	25,518,000	26,565,000	30,540,000	30,043,000	28,475,000	32,475,000	30,320,000	32,940,000
Sugarcane . .	(a)	2,258,000	2,284,000	2,376,000	2,526,700	2,545,500	2,311,000	2,391,000	2,414,000
Tea . . .	467,000	525,000	540,000	593,000	591,800	610,100	624,500	635,200	651,200
Cotton . .	13,866,000	16,652,000	21,146,000	23,171,000	22,028,000	25,023,000	24,595,000	17,746,000	21,212,000
Jute . . .	2,035,000	2,335,000	3,264,000	3,057,000	2,970,500	2,911,000	3,358,700	2,375,900	2,702,700
Linseed . .	2,869,000	3,547,000	3,061,000	3,852,000	4,124,900	3,031,000	3,325,000	3,333,000	3,532,000
Rape and Mustard	4,541,000	5,598,000	6,056,000	6,407,000	5,955,800	6,266,400	6,507,000	6,437,000	6,440,000
Sesamum . .	4,019,000	4,903,000	4,915,000	5,129,000	4,989,500	5,076,000	5,565,000	5,108,000	5,015,000
Groundnut . .	(a)	431,000	827,000	1,610,000	1,366,400	2,105,900	2,413,000	1,673,000	2,317,000
Indigo . .	1,280,000	722,000	354,000	216,000	216,800	172,600	148,400	353,100	756,400

Yield

Crops	Average 1895-96 to 1899-1900	Average 1900-01 to 1904-05	Average 1905-06 to 1909-10	Average 1910-11 to 1914-15	1912-13	1913-14	1914-15	1915-16	1916-17
Rice . . tons	21,466,000	21,550,000	21,912,000	28,517,000	28,485,000	28,790,000	27,242,000	32,831,000	34,079,000
Wheat . „	6,029,000	7,676,000	8,092,000	9,657,000	9,853,000	8,358,000	10,087,000	8,652,000	10,158,000
Sugarcane . „	(a)	2,049,000	1,996,000	2,401,000	2,583,600	2,291,500	2,462,000	2,634,000	2,626,000
Tea . . lbs.	158,375,000	201,389,000	242,386,000	289,995,000	297,878,100	307,249,600	312,976,200	371,836,700	368,527,600
Cotton . . bales	2,303,000	3,203,000	3,976,000	4,405,000	4,610,000	5,066,000	5,209,000	3,738,000	4,273,000
Jute . . „	5,771,000	7,036,000	8,136,000	9,069,000	9,842,800	8,893,900	10,443,900	7,340,900	8,305,600
Linseed . tons	352,000	416,000	333,000	508,000	542,100	386,200	397,000	476,000	520,000
Rape and Mustard . „	915,000	1,011,000	992,000	1,225,000	1,241,200	1,087,500	1,219,200	1,102,100	1,181,200
Sesamum . „	348,000	465,000	448,000	468,000	474,000	403,500	551,000	482,000	493,000
Groundnut . „	(a)	(a)	358,000	695,000	669,900	748,800	947,000	1,058,000	1,147,000
Indigo . cwts	156,000	100,000	49,000	37,000	39,100	26,800	25,200	55,100	95,500

Note.—Figures for 1916-17 are subject to revision

(a) Not available

No. 2.—YIELD PER ACRE OF CROPS (tabulated in tables 4 to 14) IN EACH PROVINCE IN EACH OF THE LAST FIVE YEARS

Province	Rice (cleaned)					Wheat					Sugarcane (raw sugar or gúr)					Tea				
	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United Provinces	657	467	734	804	837	891	777	933	917	1,014	2,045	1,582	2,167	2,270	2,081	341	322	297	368	294
Madras	908	878	875	909	1,090	...	...	...	...	...	4,636	4,019	4,783	4,386	4,794	310	270	320	412	370
Bihar and Orissa	826	1,121	826	1,209	1,212	933	973	638	979	1,024	2,464	2,464	2,333	2,223	2,466	117	142	128	133	182
Bombay	1,131	1,090	1,180	1,064	1,008	701	539	602	566	581	5,098	5,588	5,973	6,149	6,332	...	...	...	...	...
Sind	634	649	814	852	900	938	901	987	808	645										
Bengal	907	837	702	836	851	782	793	535	669	695	2,658	2,512	2,403	2,482	2,342	469	514	473	555	559
Punjab	...	...	...	...	...	719	745	736	542	613	1,674	1,684	1,805	1,775	1,890	208	229	196	199	155
Central Provinces and Berar	...	371	729	749	652	636	455	514	603	655	...	2,383	2,594	2,773	2,727	...	...	...	...	...
Burma	1,012	899	824	904	941	...	...	...	...	...	...	...	...	...	...	49	51	52	52	53
Assam	1,021	782	786	744	738	...	...	...	...	...	1,941	1,893	1,781	1,756	1,804	550	543	553	641	622
North-West Frontier Province	...	...	...	...	...	497	585	627	635	591	2,509	2,480	2,520	2,385	2,613	...	...	...	...	...
Ajmer-Merwara	...	...	...	...	...	...	896	589	373	880	...	...	...	...	...	...	...	...	...	...
Delhi	...	...	...	...	...	...	...	...	880	684	...	...	...	...	...	...	...	...	...	...
Coorg	1,430	956	1,466	1,448	1,440	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	...	731	412	464	490	572	...	...	...	...	...	...	...	...	...	...
Rajputana	...	...	...	...	...	539	439	549	400	518	...	...	...	...	...	...	...	...	...	...
Hyderabad (b)	...	...	...	...	...	126	137	127	161	210	...	...	...	...	...	...	...	...	...	...
Mysore	...	...	...	...	...	459	461	363	328	373	...	...	...	...	...	...	...	...	...	...
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	471	405	413	498	421
AVERAGE	891	855	796	941	958	735	657	696	639	691	2,290	2,016	2,386	2,468	2,437	503	504	501	585	566

Province	Linseed					Rape and Mustard					Sesamum					Groundnut (nuts in shell)				
	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United Provinces	431	361	399	448	457	520	340	505	420	419	247	109	189	202	189	...	...	...	...	...
Madras	...	...	...	...	...	...	...	...	...	...	178	200	200	191	245	827	574	696	1,288	1,008
Bihar and Orissa	444	514	366	459	493	444	494	322	423	494	250	320	283	343	364	...	...	...	...	...
Bombay	227	181	302	318	303	592	571	567	373	592	272	236	348	268	305	2,210	2,199	2,248	2,602	2,062
Sind	...	...	...	...	...	235	258	251	188	337	214	263	130	132	224	...	...	...	...	...
Bengal	419	395	320	347	357	449	454	395	395	435	297	270	259	244	239	...	...	...	...	...
Punjab	...	190	229	210	204	395	369	374	290	368	229	246	242	265	272	...	...	...	...	...
Central Provinces and Berar	210	166	146	177	189	...	...	...	...	...	175	180	209	225	165	...	...	...	...	...
Burma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,003	799	733	992	990
Assam	...	...	...	...	...	443	459	427	414	386	380	320	...	...	...	...	...	...	...	...
North-West Frontier Province	...	...	...	...	...	213	252	314	387	220	...	...	...	...	...	...	...	...	...	...
Ajmer-Merwara (a)	...	...	...	...	...	...	...	...	...	...	...	19	64	17	172	...	...	...	...	...
Delhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajputana	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad (b)	76	90	86	93	112	40	40	64	37	75	112	92	101	90	122	...	...	...	...	...
Mysore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
AVERAGE	294	285	267	320	330	467	389	419	384	411	213	178	222	211	220	1,098	796	879	1,417	1,109

(a) The generally low outturn of sesamum in Ajmer-Merwara is due to the fact that the crop is grown on unirrigated land, which is not manured and on which no other valuable crop is expected to give a yield sufficiently remunerative

(b) The question regarding the generally low outturn in Hyderabad is under investigation

Note.—Figures for 1916-17 are subject to revision

No. 2.—YIELD PER ACRE OF CROPS (tabulated in tables 4 to 14) IN EACH PROVINCE IN EACH OF THE LAST FIVE YEARS—*contd.*

Province	Cotton (ginned)					Jute					Indigo (dye)				
	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17	1912-13	1913-14	1914-15	1915-16	1916-17
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United Provinces	148	122	125	126	104	...	...	...	...	...	15	14	14	10	10
Madras	78	45	46	48	66	...	...	...	...	...	27	23	21	20	15
Bihar and Orissa	83	93	91	96	93	1,063	757	840	1,296	986	18	12	16	13	15
Bombay	89	88	91	84	95	...	...	...	...	...	...	31	27	16	21
Sind	166	158	138	119	128	...	...	...	...	...					
Bengal	165	110	151	136	110	1,370	1,292	1,295	1,245	1,258	11	9	17	14	10
Punjab	95	119	105	86	114	...	...	...	...	...	18	17	18	14	19
Central Provinces and Berar	81	81	93	109	55	...	...	...	...	...	...	...	...	...	...
Burma	79	74	62	58	81	...	...	...	...	...	...	...	...	...	...
Assam	114	145	141	125	137	948	941	1,102	826	1,075	...	...	...	...	...
North-West Frontier Province	93	95	93	62	86	...	...	...	...	...	...	...	...	...	...
Ajmer-Merwara	208	105	111	35	162	...	...	...	...	...	...	...	...	...	...
Delhi	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coorg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Central India	63	77	77	86	88	...	...	...	...	...	...	...	...	...	...
Rajputana	127	112	158	102	143	...	...	...	...	...	...	...	...	...	...
Hyderabad (*a*)	42	44	44	61	62	...	...	...	...	...	...	...	...	...	...
Mysore	49	47	51	61	51	...	...	...	...	...	...	...	...	...	...
Travancore	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Average	84	81	85	84	81	1,325	1,222	1,244	1,236	1,229	20	17	19	17	14

Note.—Figures for 1916-17 are subject to revision
(*a*) The question regarding the generally low outturn in Hyderabad is under investigation

No. 3.—STANDARD OR NORMAL YIELDS PER ACRE OF THOSE CROPS FOR WHICH FORECASTS ARE PREPARED

Province	Rice (cleaned)	Wheat	Sugar-cane (*gur*)	Cotton (ginned)	Jute	Linseed	Rape and mustard	Sesamum	Ground-nut (nuts in shell)	Indigo (dye)
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Bengal	(*a*) 987 (*b*) 823 (*c*) 1,111	864	2,921	155	1,271	494	494	350	...	12
Bihar and Orissa	(*a*) 1,234 (*b*) 823 (*c*) 823	(*d*) 984 (*e*) 451 (*f*) 861	2,464	155	1,200	494	494	350	...	20
Assam	(*a*) 1,008 (*b*) 672 (*c*) 1,008	...	1,904	154	1,320	...	504	...	...	...
United Provinces	900	1,050	2,600	160	...	500	600	280	...	18
Madras	(*h*) 1,680 (*i*) 887	...	5,040	(*h*) 87 (*i*) 65	...	...	...	300	1,120	35
Bombay	1,230	575	6,950	100	...	360	625	400	3,000	*
Sind	1,180	1,340	4,233	(*j*) 380	...	...	602	394	...	...
Punjab	...	726	1,686	118	...	*	396	*	...	*
Central Provinces and Berar	624	600	2,569	85	...	226	...	224	...	...
North-West Frontier Province	...	633	2,430	160	...	...	418	...	...	...
Burma	(*g*) 1,070	...	...	122	...	...	...	...	870	...
Ajmer-Merwara	..	*	...	170	...	...	...	*	...	...
Delhi	...	*	...	...	...	...	...	...	...	...
Coorg	1,483	...	...	...	...	...	...	...	...	...

* Not available
(*a*) Winter Rice
(*b*) Autumn Rice
(*c*) Summer Rice
(*d*) Bihar
(*e*) Chota Nagpur
(*f*) Orissa
(*g*) 997 lbs. for Upper Burma and 1,140 lbs. for Lower Burma
(*h*) Irrigated
(*i*) Unirrigated
(*j*) Subject to revision

No. 4.—AREA AND YIELD OF RICE IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bengal (*a*) . .	40,210,000	38,158,000	42,977,000	42,793,000	20,437,000	20,639,000	19,846,000	20,450,000	20,916,000	21,120,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	17,363,000	16,196,000	16,223,000	16,130,000	(*i*) 16,255,000	16,442,000
Madras (*b*) . .	7,215,000	7,361,000	7,675,000	7,787,000	10,288,000	10,944,000	10,678,000	10,876,000	11,223,000	11,377,000
Burma (*e*) . .	7,252,000	7,569,000	7,467,000	7,449,000	7,373,000	9,966,000	10,056,000	9,993,000	10,406,000	10,520,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	5,220,000	6,811,000	6,062,000	6,200,000	6,376,000	7,156,000
Central Provinces and Berar . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	4,986,000	5,083,000	5,097,000	5,086,000
Assam . . .	(*c*)	(*c*)	(*c*)	(*c*)	4,045,000	4,272,000	3,752,000	4,045,000	4,280,000	4,265,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,624,000	2,628,000	2,650,000	2,336,000	2,430,000
Sind (including Native States) (*g*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,088,000	1,112,000	1,117,000	1,194,000	1,220,000
Coorg . . .	81,000	80,000	81,000	82,000	82,000	83,000	82,000	81,000	82,000	84,000
TOTAL .	54,758,000	53,168,000	58,200,000	58,111,000	64,808,000	71,623,000	75,425,000	76,625,000	78,165,000	79,700,000

Yield (tons)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bengal (*a*) . .	13,328,000	14,131,000	(*h*) 21,780,000	(*h*) 21,848,000	8,635,000	8,356,000	7,412,000	6,411,000	8,276,000	8,028,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	(*c*)	8,906,000	5,969,000	8,120,000	5,947,000	(*i*) 8,771,000	8,898,000
Madras (*b*) . .	2,475,000	2,185,000	2,868,000	3,174,000	5,833,000	4,435,000	4,186,000	4,247,000	4,552,000	5,536,000
Burma (*e*) . .	3,157,000	3,233,000	3,209,000	2,875,000	3,325,000	4,501,000	4,037,000	3,675,000	4,200,000	4,417,000
United Provinces .	(*d*)	(*d*)	(*d*)	(*d*)	1,779,000	1,998,000	1,264,000	2,032,000	2,289,000	2,675,000
Central Provinces and Berar . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	825,000	1,655,000	1,705,000	1,481,000
Assam . . .	(*c*)	(*c*)	(*c*)	(*c*)	1,596,000	1,948,000	1,310,000	1,420,000	1,421,000	1,406,000
Bombay (including Native States) (*f*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	820,000	1,279,000	1,396,000	1,110,000	1,094,000
Sind (including Native States) (*g*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	405,000	322,000	406,000	454,000	490,000
Coorg . . .	57,000	39,000	52,000	58,000	40,000	53,000	35,000	53,000	53,000	54,000
TOTAL .	19,017,000	19,588,000	27,909,000	27,955,000	30,114,000	28,485,000	28,790,000	27,242,000	32,831,000	34,079,000

(*a*) Includes Bihar and Orissa and Assam down to 1910-11
(*b*) The estimates for years prior to 1911-12 are generally defective
(*c*) Included under Bengal
(*d*) Not available
(*e*) The figures down to 1911-12 relate only to the chief rice-growing districts in Lower Burma
(*f*) The estimates relate to all rice-growing districts. Figures for Baroda and other Native States have been added from 1913-14
(*g*) Includes Native State from 1913-14
(*h*) Season very favourable
(*i*) Revised since the issue of the Final General Memorandum in February 1917

Note.—Figures for 1916-17 are subject to revision

No. 5.—AREA AND YIELD OF WHEAT IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Punjab (including Native States).	8,272,000	9,002,000	9,142,000	9,981,000	11,018,000	9,316,000	9,588,000	11,336,000	10,246,000	10,737,000
United Provinces .	4,406,000	5,695,000	6,491,000	7,342,000	7,578,000	7,382,000	6,406,000	7,301,000	6,599,000	6,764,000
Central Provinces and Berar (*a*) .	2,801,000	2,860,000	3,176,000	3,585,000	3,739,000	3,743,000	3,384,000	3,393,000	3,616,000	3,996,000
Central India States	1,694,000	2,046,000	2,313,000	2,460,000	2,563,000	3,216,000	2,695,000	3,096,000	2,949,000	3,517,000
Bombay (including Native States) (*b*).	1,678,000	1,746,000	1,820,000	1,855,000	1,284,000	1,735,000	2,102,000	2,253,000	2,252,000	2,250,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	1,312,000	1,285,000	1,270,000	1,342,000	1,218,000	1,330,000	1,308,000
North-West Frontier Province (*d*) .	978,000	1,019,000	1,008,000	1,033,000	1,203,000	879,000	992,000	1,183,000	868,000	1,050,000
Hyderabad State .	933,000	1,098,000	1,097,000	1,104,000	970,000	851,000	702,000	898,000	1,045,000	1,344,000
Rajputana States .	604,000	888,000	1,085,000	1,187,000	963,000	1,014,000	622,000	902,000	649,000	1,147,000
Sind (including Native States) .	447,000	548,000	471,000	560,000	391,000	487,000	490,000	706,000	588,000	629,000
Bengal (*e*) .	1,096,000	1,332,000	1,500,000	143,000	143,000	146,000	144,000	134,000	134,000	129,000
Delhi . . .	(*f*)	(*f*)	(*f*)	(*f*)	(*g*)	(*g*)	(*g*)	32,000	28,000	36,000
Ajmer-Merwara .	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	5,000	19,000	12,000	28,000
Mysore State .	2,000	2,000	3,000	3,000	4,000	4,000	3,000	4,000	4,000	5,000
TOTAL .	22,911,000	26,236,000	28,106,000	30,565,000	31,141,000	30,043,000	28,475,000	32,475,000	30,320,000	32,940,000

Yield (tons)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Punjab (including Native States).	2,489,000	3,062,000	3,434,000	3,709,000	3,809,000	2,989,000	3,189,000	3,725,000	2,481,000	2,937,000
United Provinces .	1,675,000	2,124,000	2,975,000	2,919,000	3,032,000	2,938,000	2,221,000	3,042,000	2,700,000	3,061,000
Central Provinces and Berar (*a*) .	507,000	721,000	992,000	973,000	904,000	1,062,000	688,000	778,000	973,000	1,168,000
Central India States	271,000	397,000	514,000	582,000	686,000	1,049,000	496,000	642,000	645,000	898,000
Bombay (including Native States) (*b*)	336,000	383,000	451,000	506,000	265,000	543,000	506,000	605,000	569,000	584,000
Bihar and Orissa .	(*c*)	(*c*)	(*c*)	570,000	557,000	529,000	583,000	347,000	581,000	598,000
North-West Frontier Province (*d*) .	213,000	213,000	235,000	266,000	280,000	195,000	259,000	331,000	246,000	277,000
Hyderabad State .	67,000	72,000	68,000	97,000	43,000	48,000	43,000	51,000	75,000	126,000
Rajputana States .	133,000	199,000	266,000	265,000	204,000	244,000	122,000	217,000	116,000	265,000
Sind (including Native States) .	113,000	134,000	132,000	136,000	97,000	204,000	197,000	311,000	212,000	181,000
Bengal (*e*) . .	321,000	334,000	566,000	38,000	47,000	51,000	51,000	32,000	40,000	40,000
Delhi . . .	(*f*)	(*f*)	(*f*)	(*f*)	(*g*)	(*g*)	(*g*)	(*g*)	11,000	11,000
Ajmer-Merwara .	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	(*g*)	2,000	5,000	2,000	11,000
Mysore State .	600	200	400	500	500	1,000	1,000	1,000	1,000	1,000
TOTAL .	6,125,600	7,639,200	9,633,400	10,061,500	9,924,500	9,853,000	8,358,000	10,087,000	8,652,000	10,158,000

(*a*) Includes the Native States of Khairagarh and Nandgaon
(*b*) Includes also the Native State of Baroda. Estimates for non-reporting tracts have been added from 1912-13
(*c*) Included under Bengal
(*d*) Includes the Tochi and the Kurram Agencies
(*e*) Includes Bihar and Orissa up to 1909-10
(*f*) Included under Punjab
(*g*) Not available

No. 6.—AREA AND YIELD OF SUGARCANE IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	1,481,700	1,120,100	1,037,600	1,047,100	1,340,600	1,425,400	1,379,900	1,192,000	1,261,000	1,200,000
Punjab (*a*)	391,800	365,700	403,800	387,900	284,800	367,000	410,900	366,000	347,000	410,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	263,000	266,100	262,800	266,000	262,000	277,000
Bengal (*c*)	607,200	553,000	507,800	515,600	223,300	221,800	218,300	233,000	231,000	220,000
Bombay (including Native States)(*e*)	74,300	92,800	89,200	83,400	94,700	79,400	91,400	90,000	106,000	104,000
Madras	49,000	43,700	43,800	47,900	107,700	98,800	83,600	74,000	95,000	114,000
Assam	(*b*)	(*b*)	(*b*)	(*b*)	34,700	38,200	46,500	39,000	37,000	36,000
North-West Frontier Province (*f*)	35,200	27,500	30,600	32,700	31,500	30,000	31,700	32,000	31,000	30,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	20,400	19,900	21,000	23,000
TOTAL	2,639,200	2,202,800	2,112,800	2,114,600	2,380,300	2,526,700	2,545,500	2,311,000	2,391,000	2,414,000

Yield (tons) of raw sugar (gûr)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	916,700	844,200	955,200	1,042,900	1,259,300	1,301,500	974,500	1,153,000	1,278,000	1,115,000
Punjab (*a*)	238,700	265,600	328,700	262,600	161,200	274,300	308,900	295,000	275,000	346,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	(*b*)	303,800	292,700	289,100	277,000	260,000	305,000
Bengal (*c*)	583,100	430,800	495,800	563,500	256,300	263,200	244,800	250,000	256,000	230,000
Bombay (including Native States)(*e*)	184,200	221,200	232,300	226,000	214,600	180,700	228,000	240,000	291,000	294,000
Madras	92,000	81,000	82,000	87,100	196,000	204,500	150,000	158,000	186,000	244,000
Assam	(*b*)	(*b*)	(*b*)	(*b*)	28,000	33,100	39,400	31,000	29,000	29,000
North-West Frontier Province (*f*)	32,200	30,100	33,100	35,700	31,900	33,600	35,100	36,000	33,000	35,000
Central Provinces and Berar	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	21,700	22,000	26,000	28,000
TOTAL	2,046,900	1,872,900	2,127,100	2,217,800	2,451,100	2,583,600	2,291,500	2,462,000	2,634,000	2,626,000

(*a*) Figures for years prior to 1913-14 exclude unimportant districts
(*b*) Included under Bengal
(*c*) Includes Bihar and Orissa and Assam down to 1910-11
(*d*) Not available
(*e*) Includes also the State of Baroda. Up to 1911-12 the figures related to the chief sugarcane-growing districts only; from 1912-13 those for other districts and for Sind have been added; estimates for non-reporting tracts have been added from 1909-10
(*f*) Up to 1912-13 the figures related to three selected districts. From 1913-14 all the districts including the Tochi Agency have been reported on

NOTE.—Figures for 1916-17 are subject to revision

No. 7.—AREA AND YIELD OF TEA IN EACH PROVINCE

Area (acres)

Province	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
Assam	342,300	345,600	348,000	350,200	354,300	361,700	367,800	376,400	382,800	389,200
Bengal	139,500	141,600	143,200	145,900	146,800	150,500	156,100	159,300	161,300	165,800
Travancore State	26,000	27,100	29,200	30,400	32,000	34,100	37,400	38,800	40,700	42,000
Madras	11,000	14,600	15,700	18,100	20,600	24,400	26,300	26,900	27,600	31,300
United Provinces	8,000	8,100	8,100	7,900	7,600	7,800	8,000	8,000	7,900	8,000
Punjab	9,400	9,400	9,400	9,400	9,400	9,300	9,300	9,900	9,900	9,900
Bihar and Orissa (*a*)	...	...	...	...	2,200	2,300	2,200	2,200	2,200	2,200
Burma	1,700	1,700	1,700	1,700	1,700	1,700	3,000	3,000	2,800	2,800
TOTAL	537,900	548,100	555,300	563,600	574,600	591,800	610,100	624,500	635,200	651,200

Yield (lbs)

Province	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
Assam	164,194,300	166,456,900	174,851,200	175,095,100	179,053,000	198,798,300	199,722,000	208,227,100	245,385,900	242,184,600
Bengal	60,216,600	59,971,600	60,920,700	64,674,200	64,653,900	70,524,200	80,108,700	75,373,200	89,526,100	92,645,000
Travancore State	12,749,400	12,593,800	13,353,700	14,323,100	14,714,500	16,059,600	15,155,600	16,010,200	20,248,800	17,702,900
Madras	3,470,600	4,436,400	5,325,700	5,645,200	5,795,400	7,555,800	7,089,000	8,607,600	11,361,600	11,566,200
United Provinces	2,294,600	2,009,900	2,206,600	2,045,300	2,534,700	2,656,800	2,579,100	2,379,200	2,906,000	2,352,700
Punjab	1,237,500	1,437,500	1,413,700	1,418,900	1,489,200	1,931,000	2,129,800	1,941,300	1,969,600	1,530,100
Bihar and Orissa (*a*)	...	...	...	...	285,500	269,100	311,600	282,400	293,200	400,000
Burma	129,600	118,400	64,800	67,600	76,500	83,300	153,800	155,200	145,500	146,100
TOTAL	244,292,600	247,024,500	258,136,400	263,269,400	268,602,700	297,878,100	307,249,600	312,976,200	371,836,700	368,527,600

(*a*) Figures for years down to 1910 are included under Bengal
Note.—Figures for 1916 are subject to revision

No. 8.—AREA AND YIELD OF COTTON IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bombay (including Native States) (*a*)	7,101,000	6,241,000	6,469,000	7,334,000	5,786,000	6,826,000	7,323,000	7,796,000	5,005,000	6,394,000
Central Provinces and Berar	4,432,000	4,176,000	4,167,000	4,487,000	4,648,000	4,493,000	4,754,000	4,708,000	4,061,000	4,401,000
Hyderabad State	3,100,000	2,902,000	3,401,000	3,562,000	3,234,000	2,888,000	3,653,000	3,605,000	2,964,000	3,200,000
Madras (*b*)	1,855,000	1,576,000	1,569,000	1,873,000	2,878,000	2,414,000	2,725,000	2,115,000	2,061,000	2,288,000
Punjab (including Native States)	1,474,000	1,562,000	1,436,000	1,385,000	1,582,000	1,575,000	2,053,000	1,857,000	902,000	1,171,000
United Provinces (*c*)	1,461,000	1,392,000	1,241,000	1,347,000	921,000	1,158,000	1,586,000	1,551,000	834,000	1,184,000
Central India States	993,000	978,000	1,068,000	1,349,000	1,400,000	1,314,000	1,426,000	1,519,000	999,000	1,411,000
Rajputana States	438,000	389,000	464,000	465,000	263,000	393,000	470,000	421,000	244,000	334,000
Sind (including Native States)	259,000	259,000	214,000	279,000	346,000	296,000	341,000	336,000	161,000	231,000
Burma	195,000	204,000	198,000	167,000	186,000	233,000	290,000	270,000	187,000	223,000
Mysore	84,000	65,000	81,000	101,000	101,000	154,000	93,000	109,000	92,000	126,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	88,000	92,000	73,000	70,000	67,000	69,000
North-West Frontier Province (*e*)	48,000	54,000	32,000	33,000	56,000	56,000	59,000	60,000	26,000	28,000
Bengal (including Native State)(*f*)	149,000	161,000	166,000	169,000	63,000	51,000	87,000	90,000	88,000	73,000
Ajmer-Merwara	41,000	40,000	39,000	45,000	27,000	50,000	57,000	54,000	23,000	47,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	36,000	35,000	33,000	34,000	32,000	32,000
TOTAL	21,630,000	19,999,000	20,545,000	22,596,000	21,615,000	22,028,000	25,023,000	24,595,000	17,746,000	21,212,000

Yield (bales of 400 lbs each)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bombay (including Native States) (*a*)	1,039,000	1,282,000	1,661,000	1,450,000	695,000	1,520,000	1,614,000	1,773,000	1,051,000	1,519,000
Central Provinces and Berar	595,000	766,000	1,070,000	629,000	913,000	910,000	961,000	1,097,000	1,106,000	600,000
Hyderabad State	293,000	307,000	461,000	293,000	300,000	300,000	400,000	400,000	450,000	500,000
Madras (*b*)	198,000	162,000	180,000	235,000	335,000	471,000	308,000	245,000	245,000	377,000
Punjab (including Native States)	356,000	324,000	396,000	306,000	241,000	373,000	612,000	486,000	195,000	333,000
United Provinces (*c*)	268,000	426,000	384,000	348,000	251,000	428,000	484,000	486,000	262,000	309,000
Central India States	55,000	144,000	221,000	237,000	228,000	206,000	273,000	293,000	216,000	309,000
Rajputana States	91,000	80,000	148,000	143,000	73,000	125,000	132,000	166,000	62,000	119,000
Sind (including Native States)	135,000	101,000	104,000	97,000	124,000	123,000	135,000	116,000	48,000	74,000
Burma	29,000	41,000	32,000	28,000	32,000	46,000	54,000	42,000	27,000	45,000
Mysore	6,000	3,000	6,000	10,000	17,000	19,000	11,000	14,000	14,000	16,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	(*d*)	19,000	19,000	17,000	16,000	16,000	16,000
North West Frontier Province (*e*)	9,000	12,000	7,000	8,000	12,000	13,000	14,000	14,000	4,000	6,000
Bengal (including Native State)(*f*)	38,000	35,000	35,000	49,000	25,000	21,000	24,000	34,000	30,000	20,000
Ajmer-Merwara	10,000	9,000	13,000	20,000	12,000	26,000	15,000	15,000	2,000	19,000
Assam	(*d*)	(*d*)	(*d*)	(*d*)	11,000	10,000	12,000	12,000	10,000	11,000
TOTAL	3,122,000	3,692,000	4,718,000	3,853,000	3,288,000	4,610,000	5,066,000	5,209,000	3,738,000	4,273,000
Net Exports and Consumption (*g*)	3,782,401	4,200,150	4,928,000	4,303,000	3,985,000	4,483,000	5,913,000	4,889,000	5,109,000	4,760,000

(*a*) Includes also the State of Baroda. Estimates for non-reporting tracts have been added from 1909-10

(*b*) Includes Native States.

(*c*) Includes the Native State of Rampur

(*d*) Included under Bengal

(*e*) Includes the Tochi and the Kurram Agencies from 1913-14

(*f*) Includes Bihar and Orissa and Assam down to 1910-11

(*g*) The exports as well as the mill consumption are for the year ending September up to 1910-11; from 1911-12 to 1915-16 they are for the year ending August; for 1916-17 they relate to the year ending June 1917. No reliable information exists as to the annual consumption outside the mills, but in 1911 it was settled in consultation with the Bombay Cotton Trade Association to adopt the conventional estimate of 450,000 bales. This figure has been included in the figure for each year shown against this item up to 1913-14. The consumption for 1914-15 was estimated at 1,000,000 bales and that for 1915-16 and 1916-17 at 750,000 bales each year by the Association.

Note.—Figures for 1916-17 are subject to revision

No. 9.—AREA AND YIELD OF JUTE IN EACH PROVINCE

Area (acres)

Province	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
Bengal (*a*)	2,766,300	2,773,100	2,841,600	2,737,600	2,536,900	2,456,600	2,872,600	2,086,300	2,351,800	2,376,200
Bihar and Orissa	(*b*)	(*b*)	(*b*)	258,100	298,300	318,400	330,100	188,100	224,000	223,300
Assam	68,400	83,500	82,200	90,700	95,700	97,000	111,600	74,000	95,100	94,000
Cooch Bihar State	22,000	20,000	14,000	20,000	39,600	39,000	44,400	27,500	31,800	36,200
TOTAL	2,856,700	2,876,600	2,937,800	3,106,400	2,970,500	2,911,000	3,358,700	2,375,900	2,702,700	2,729,700

Yield (bales of 400 lbs each)

Province	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917
Bengal (*a*)	6,132,700	6,992,500	7,735,300	7,247,600	8,698,300	7,939,900	9,308,000	6,506,100	7,429,900	7,854,000
Bihar and Orissa	(*b*)	(*b*)	(*b*)	705,500	792,900	602,900	693,200	609,600	552,000	669,800
Assam	138,500	180,500	177,800	239,600	226,800	228,300	307,500	152,900	255,700	221,100
Cooch Bihar State	39,600	33,600	18,900	42,000	124,800	122,800	135,200	72,300	68,000	95,000
TOTAL (*c*)	6,310,800	7,206,600	7,932,000	8,234,700	9,842,800	8,893,900	10,443,900	7,340,900	8,305,600	8,839,900
Exports and consumption (*d*)	8,806,000	9,128,000	8,143,000	9,004,000	10,027,000	9,309,000	8,489,000	9,427,000	9,018,000	(*e*)

(*a*) Includes Bihar and Orissa down to 1910
(*b*) Included under Bengal
(*c*) Excluding Nepal, for which no estimate of area or yield is available. The figures of imports from Nepal are, however, stated below:

	Bales		Bales		Bales
1907	83,000	1910	79,000	1913	105,000
1908	88,000	1911	57,000	1914	37,000
1909	81,000	1912	96,000	1915	92,000
				1916	70,000

(*d*) The exports as well as mill consumption are for the year ending June. The mill consumption and the extra-factory consumption (the latter being 500,000 bales for each year) are the trade estimates
(*e*) Not yet available

No. 10.—AREA AND YIELD OF LINSEED IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Central Provinces and Berar	547,600	954,700	926,200	1,080,400	1,858,800	1,509,000	952,100	1,224,000	1,048,000	1,176,000
United Provinces (*a*)	57,500	194,700	308,400	472,800	848,800	493,500	240,600	266,000	295,000	354,000
	269,000	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*	*650,000*	*675,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	510,300	567,800	528,000	652,900	624,000	663,000	668,000
Hyderabad State	484,800	555,400	548,900	631,300	603,500	512,400	412,600	234,000	288,000	321,000
Bengal (*c*)	589,400	634,600	673,400	196,900	206,800	199,800	193,700	182,000	181,000	157,000
Bombay (including Native States)	151,100	158,600	134,200	194,700	205,300	171,900	173,100	126,000	176,000	148,000
Punjab	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	43,300	39,000	49,000	(*e*)32,000	(*e*)33,000
Total (*a*)	1,830,400	2,498,000	2,591,100	3,036,400	4,291,000	3,457,900	2,664,000	2,705,000	2,683,000	2,857,000
	269,000	*499,000*	*597,000*	*656,000*	*747,000*	*667,000*	*367,000*	*620,000*	*650,000*	*675,000*
GRAND TOTAL	2,099,400	2,997,000	3,188,100	3,742,400	5,038,000	4,124,900	3,031,000	3,325,000	3,333,000	3,532,000

Yield (tons)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Central Provinces and Berar	23,500	90,900	90,300	124,500	139,000	141,800	70,700	80,000	83,000	99,000
United Provinces (*a*)	6,500	30,400	62,000	102,900	159,700	95,500	38,800	48,000	59,000	72,000
	30,000	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*	*130,000*	*138,000*
Bihar and Orissa	(*b*)	(*b*)	(*b*)	112,500	125,200	104,700	149,700	102,000	136,000	147,000
Hyderabad State	13,600	17,200	18,400	30,400	26,800	17,300	16,500	9,000	12,000	16,000
Bengal (*c*)	85,900	72,500	124,200	30,700	39,200	37,400	34,200	26,000	28,000	25,000
Bombay (including Native States)	4,000	8,700	12,900	28,300	15,000	17,400	14,000	17,000	25,000	20,000
Punjab	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	3,300	5,000	3,000	3,000
Total (*a*)	133,500	219,700	307,800	429,300	504,900	414,100	327,200	287,000	346,000	382,000
	30,000	*78,000*	*120,000*	*142,000*	*140,000*	*128,000*	*59,000*	*110,000*	*130,000*	*138,000*
GRAND TOTAL	163,500	297,700	427,800	571,300	644,900	542,100	386,200	397,000	476,000	520,000

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates for the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate.
(*b*) Included under Bengal (*c*) Includes Bihar and Orissa down to 1909-10 (*d*) Not available
(*e*) Revised since the issue of the Final General Memorandum in May 1917
Note.—Figures for 1916-17 are subject to revision

No. 11.—AREA AND YIELD OF RAPE AND MUSTARD IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces (*a*)	96,800	136,800	176,900	146,200	176,200	145,000	150,400	190,000	181,000	156,000
	1,870,060	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*	*2,400,000*	*2,500,000*
Punjab (*b*)	842,800	1,158,900	1,329,900	1,089,000	1,414,100	887,800	1,002,900	1,047,000	1,129,000	(*g*)1,016,000
Bengal (*c*)	1,889,100	1,854,900	2,278,300	1,370,700	1,317,500	1,325,400	1,312,600	1,303,000	1,322,000	1,225,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	765,700	780,100	723,300	751,900	681,000	725,000	758,000
Assam	261,000	284,300	320,100	318,100	258,100	295,000	299,200	304,000	325,000	284,000
North-West Frontier Province	121,000	226,900	91,700	85,100	94,200	75,700	141,300	114,000	110,000	163,000
Bombay (including Native States)(*e*)	46,900	80,800	86,900	84,600	17,600	75,700	83,500	83,000	36,000	53,000
Sind (including Native States)(*f*)	63,100	120,400	69,700	76,200	54,000	43,800	365,000	428,000	203,000	279,000
Hyderabad State	9,500	12,500	8,100	9,300	6,500	11,100	5,600	7,000	6,000	6,000
TOTAL (*a*)	3,330,200	3,875,500	4,361,600	3,944,900	4,118,300	3,582,800	4,112,400	4,157,000	4,037,000	3,940,000
	1,870,000	*2,153,000*	*2,269,000*	*2,371,000*	*2,872,000*	*2,373,000*	*2,154,000*	*2,350,000*	*2,400,000*	*2,500,000*
GRAND TOTAL	5,200,200	6,028,500	6,630,600	6,315,900	6,990,300	5,955,800	6,266,400	6,507,000	6,437,000	6,440,000

Yield (tons)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces (*a*)	11,300	26,900	36,000	34,400	37,200	33,900	23,000	43,000	34,000	29,000
	217,000	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*	*450,000*	*468,000*
Punjab (*b*)	110,000	183,900	226,900	155,100	196,600	156,600	165,000	175,000	146,000	(*g*)158,000
Bengal (*c*)	275,600	231,900	440,100	238,600	243,900	265,800	266,200	230,000	233,000	238,000
Bihar and Orissa	(*d*)	(*d*)	(*d*)	168,800	171,900	143,500	165,700	98,000	137,000	167,000
Assam	42,700	46,400	60,500	56,000	47,600	58,400	61,300	58,000	60,000	49,000
North-West Frontier Province	12,300	28,600	7,900	9,500	12,100	7,200	15,900	16,000	19,000	16,000
Bombay (including Native States)(*e*)	12,500	23,200	22,600	15,400	2,600	20,000	21,300	21,000	6,000	14,000
Sind (including Native States)(*f*)	6,400	23,400	10,100	11,100	4,700	4,600	42,000	48,000	17,000	42,000
Hyderabad State	200	200	100	200	100	200	100	200	100	200
TOTAL (*a*)	471,000	564,500	804,200	689,100	716,700	690,200	760,500	689,200	652,100	713,200
	217,000	*423,000*	*466,000*	*561,000*	*609,000*	*551,000*	*327,000*	*530,000*	*450,000*	*468,000*
GRAND TOTAL	688,000	987,500	1,270,200	1,250,100	1,325,700	1,241,200	1,087,500	1,219,200	1,102,100	1,181,200

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates for the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate

(*b*) Figures for years prior to 1913-14 exclude unimportant districts

(*c*) Includes Bihar and Orissa down to 1909-10

(*d*) Included under Bengal

(*e*) Includes also the State of Baroda; up to 1911-12 the estimates related to chief rapeseed-growing districts; those for other districts have been added from 1912-13

(*f*) Estimates for *jambo* (*Eruca Sativa*) grown in Sind have been added from 1913-14

(*g*) Revised since the issue of the Final General Memorandum in May 1917

Note.—Figures for 1916-17 are subject to revision

No. 12.—AREA AND YIELD OF SESAMUM (*Til or Jinjili*) IN EACH PROVINCE.

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces (*a*)	329,800	322,000	481,300	438,900	375,000	317,200	378,400	372,000	299,000	280,000
	900,000	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*	*1,100,000*	*1,000,000*
Bombay (including Native States) (*b*)	992,700	979,500	1,037,400	994,800	548,900	793,300	851,200	1,055,000	820,000	880,000
Central Provinces and Berar	977,600	790,000	942,700	895,300	886,700	778,000	865,700	878,000	927,000	759,000
Madras	647,000	685,900	718,900	573,200	887,200	823,700	809,300	861,000	823,000	794,000
Hyderabad State	510,600	511,900	597,300	677,700	663,900	649,100	612,000	599,000	546,000	569,000
Bengal (*c*)	419,400	453,400	494,800	489,100	271,800	264,800	241,000	251,000	248,000	234,000
Bihar and Orissa	(*e*)	(*e*)	(*e*)	(*e*)	214,600	223,700	219,700	206,000	196,000	191,000
Punjab (*d*)	84,100	164,700	175,600	143,700	92,100	156,800	144,100	222,000	127,000	239,000
Sind (including Native States)	55,600	80,500	67,000	88,300	58,200	72,300	91,300	86,000	17,000	30,000
Ajmer-Merwara	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	11,900	35,000	5,000	39,000
Assam	(*f*)	(*f*)	(*f*)	(*e*)	9,700	10,600	(*g*) 1,400	(*i*)	(*i*)	(*i*)
TOTAL (*a*)	4,016,800	3,987,900	4,515,000	4,306,000	4,008,100	4,089,500	4,226,000	4,565,000	4,008,000	4,015,000
	900,000	*1,000,000*	*900,000*	*900,000*	*800,000*	*900,000*	*850,000*	*1,000,000*	*1,100,000*	*1,000,000*
GRAND TOTAL	4,916,800	4,987,900	5,415,000	5,206,000	4,808,100	4,989,500	5,076,000	5,565,000	5,108,000	5,015,000

Yield (tons)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces (*a*)	10,000	34,000	48,700	45,400	29,000	34,000	18,000	31,000	36,000	28,000
	30,000	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*	*90,000*	*80,000*
Bombay (including Native States) (*b*)	61,400	99,500	132,400	109,400	31,700	96,300	89,700	164,000	98,000	120,000
Central Provinces and Berar	55,400	59,900	91,900	76,400	72,300	60,900	69,400	82,000	93,000	56,000
Madras	53,100	57,200	59,700	49,300	78,200	65,500	72,100	77,000	70,000	87,000
Hyderabad State	20,600	18,700	24,500	34,400	25,400	32,500	25,100	27,000	22,000	31,000
Bengal (*c*)	46,300	59,000	88,600	79,400	41,500	35,100	29,000	29,000	27,000	25,000
Bihar and Orissa	(*e*)	(*e*)	(*e*)	(*e*)	33,500	25,000	31,400	26,000	30,000	31,000
Punjab (*d*)	4,700	23,700	18,500	14,900	9,900	16,000	15,800	24,000	15,000	29,000
Sind (including Native States)	4,200	12,300	6,500	12,600	4,800	6,900	10,700	5,000	1,000	3,000
Ajmer-Merwara	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	(*f*)	100	1,000	(*h*)	3,000
Assam	(*f*)	(*f*)	(*f*)	(*e*)	1,300	1,800	(*g*) 200	(*i*)	(*i*)	(*i*)
TOTAL (*a*)	255,700	364,300	470,800	421,800	327,600	374,000	361,500	466,000	392,000	413,000
	30,000	*100,000*	*90,000*	*90,000*	*70,000*	*100,000*	*42,000*	*85,000*	*90,000*	*80,000*
GRAND TOTAL	285,700	464,300	560,800	511,800	397,600	474,000	403,500	551,000	482,000	493,000

(*a*) The figures in italics represent "mixed" crop, *i.e.*, seed sown in the same fields with other crops. The estimates for the mixed crop of the United Provinces are highly conjectural; hence they have been kept separate
(*b*) Includes also the State of Baroda. Estimates for non-reporting tracts have been added from 1912-13
(*c*) Includes Bihar and Orissa down to 1910-11 and Assam for 1910-11
(*d*) Figures for years prior to 1913-14 exclude unimportant districts
(*e*) Included under Bengal
(*f*) Not available
(*g*) Early crop only
(*h*) Less than 100 tons
(*i*) Forecast discontinued

Note.—Figures for 1916-17 are subject to revision

No. 13.—AREA AND YIELD OF GROUNDNUT IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Madras . .	601,800	718,700	740,100	667,300	806,000	924,200	1,605,200	1,866,000	1,145,000	1,833,000
Bombay (including Native States) (*a*)	129,800	133,700	162,300	185,800	269,300	242,700	254,100	278,000	266,000	226,000
Burma (*b*) . .	137,000	258,600	146,300	98,800	138,800	199,500	246,600	269,000	262,000	258,000
TOTAL .	868,600	1,111,000	1,048,700	951,900	1,214,100	1,366,400	2,105,900	2,413,000	1,673,000	2,317,000

Yield (tons) of nuts in shell

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Madras . .	202,300	246,500	221,900	254,200	306,000	341,100	411,300	580,000	633,000	825,000
Bombay (including Native States) (*a*)	82,500	129,500	172,700	207,100	248,300	239,500	249,500	279,000	309,000	208,000
Burma (*b*) . .	67,700	119,700	64,700	41,900	51,400	89,300	88,000	88,000	116,000	114,000
TOTAL .	352,500	495,700	459,300	503,200	605,700	669,900	748,800	947,000	1,058,000	1,147,000

(*a*) Up to 1913-14 the figures related to chief groundnut-growing districts ; those for other districts have been added from 1914-15. Estimates for non-reporting tracts have been added from 1909-10

(*b*) The figures down to 1911-12 related to the principal groundnut-growing districts. From 1912-13 estimates for other districts also have been included

Note.—Figures for 1916-17 are subject to revision

No. 14.—AREA AND YIELD OF INDIGO IN EACH PROVINCE

Area (acres)

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bihar and Orissa (*a*)	146,800	135,300	107,400	117,000	109,600	90,100	63,100	38,500	60,800	80,600
Madras . .	141,900	81,800	96,400	82,800	90,300	61,500	55,300	71,700	222,000	449,900
Punjab (*b*) . .	57,900	36,200	43,400	45,400	36,600	37,300	22,400	20,400	21,400	57,400
United Provinces (*c*)	47,300	30,600	41,900	31,200	29,400	26,900	24,400	12,300	43,200	159,300
Bombay and Sind (including Native States) . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	6,200	4,200	4,100	7,000
Bengal . .	(*e*)	(*e*)	(*e*)	(*e*)	1,000	1,000	1,200	1,800	1,600	2,200
TOTAL .	393,900	283,900	289,100	276,400	266,900	216,800	172,600	148,400	353,100	756,400

Yield (cwts) of dye

Province	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
Bihar and Orissa (*a*)	17,700	17,000	11,400	13,900	17,800	14,700	7,000	5,500	7,100	10,900
Madras . .	20,000	12,400	14,400	20,100	21,200	14,800	11,500	13,600	40,500	59,100
Punjab (*b*) . .	9,000	5,600	8,300	8,500	5,600	6,000	3,500	3,400	2,700	9,900
United Provinces (*c*)	5,600	3,800	5,200	3,500	3,000	3,500	3,000	1,500	4,000	14,100
Bombay and Sind (including Native States) . .	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	(*d*)	1,700	1,000	600	1,300
Bengal . .	(*e*)	(*e*)	(*e*)	(*e*)	100	100	100	200	200	200
TOTAL .	52,300	38,800	39,300	46,000	47,700	39,100	26,800	25,200	55,100	95,500

(*a*) Includes Bengal down to 1910-11

(*b*) Figures for years prior to 1913-14 exclude unimportant districts

(*c*) In estimating the yield in the United Provinces it is assumed that one-tenth of the whole area is annually set aside for seed

(*d*) No information

(*e*) Included under Bihar and Orissa

Note.—Figures for 1916-17 are subject to revision

No. 15.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE

Area (acres)

Province	Barley						Jawar					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	5,163,000	4,591,000	4,376,000	4,576,000	5,020,000	5,000,000	1,633,000	2,169,000	2,063,000	2,413,000	2,546,000	2,402,000
Madras	3,000	3,000	3,000	3,000	3,000	(d)	5,166,000	5,220,000	5,790,000	5,102,000	5,525,000	(d)
Bihar and Orissa	1,340,000	1,261,000	1,305,000	1,287,000	1,314,000	1,263,000	95,000	94,000	120,000	107,000	103,000	80,000
Bombay	36,000	28,000	23,000	25,000	42,000	25,000	5,878,000	6,850,000	6,606,000	6,504,000	7,668,000	7,209,000
Sind	19,000	20,000	28,000	31,000	26,000	23,000	389,000	602,000	689,000	636,000	430,000	761,000
Bengal	95,000	95,000	94,000	95,000	94,000	99,000	2,000	3,000	2,000	2,000	3,000	3,000
Punjab	1,339,000	1,007,000	970,000	1,308,000	1,040,000	1,153,000	554,000	1,212,000	1,248,000	1,276,000	1,001,000	1,494,000
Central Provinces and Berar	(b)23,000	(b)16,000	(b)8,000	(b)11,000	(b)19,000	(d)	4,048,000	3,991,000	3,919,000	4,209,000	4,954,000	(d)
Burma	...	...	...	...	...	...	719,000	732,000	756,000	651,000	636,000	666,000
Assam	1,000	1,000	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province	296,000	214,000	291,000	422,000	314,000	248,000	53,000	95,000	103,000	120,000	40,000	107,000
Ajmer-Merwara	(b)63,000	(b)59,000	(b)46,000	(b)63,000	52,000	45,000	(b)28,000	(b)61,000	(b)69,000	(b)77,000	86,000	89,000
Total	8,378,000	7,295,000	7,144,000	7,821,000	7,924,000	(e) 7,856,000	18,565,000	21,029,000	21,374,000	21,187,000	22,992,000	(e) 12,901,000

Yield (tons)

Province	Barley						Jawar					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	(a)	(a)	1,679,000	2,048,000	2,259,000	2,350,000	355,000	598,000	227,000	630,000	665,000	523,000
Madras	(a)	(a)	(a)	(a)	(a)	(a)	(a)	943,000	1,082,000	1,155,000	1,288,000	(d)
Bihar and Orissa	579,000	523,000	557,000	426,000	482,000	549,000	(a)	(a)	(a)	(a)	33,000	26,000
Bombay	9,000	10,000	7,000	9,000	15,000	9,000	910,000	1,418,000	1,375,000	1,683,000	2,097,000	1,707,000
Sind	5,000	7,000	10,000	11,000	8,000	6,000	105,000	196,000	202,000	221,000	129,000	302,000
Bengal	(a)	(a)	(a)	(a)	29,000	31,000	(a)	(a)	(a)	(a)	1,000	1,000
Punjab	382,000	280,000	288,000	377,000	228,000	286,000	68,000	163,000	119,000	118,000	109,000	120,000
Central Provinces and Berar	(a)	(a)	(a)	(a)	(a)	(a)	986,000	980,000	918,000	1,274,000	1,645,000	(d)
Burma	...	...	...	...	...	...	49,000	82,000	101,000	61,000	62,000	89,000
Assam	(a)	(a)	...	...	...	...	...	...	...	...	...	...
North-West Frontier Province	(a)	58,000	140,000	190,000	125,000	89,000	(a)	15,000	16,000	19,000	9,000	17,000
Ajmer-Merwara	(a)	(a)	(a)	(a)	18,000	11,000	(a)	(a)	(a)	(a)	2,000	11,000
Total (c)	975,000	878,000	2,681,000	3,061,000	3,164,000	3,331,000	2,473,000	4,395,000	4,040,000	5,161,000	6,040,000	(e) 2,796,000

(a) Not available (b) Taken from Agricultural Statistics (c) Incomplete (d) Not yet reported
(e) Excludes Madras and Central Provinces and Berar

Note.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports or specially obtained from local authorities

[Continued on next page

No. 15.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE—*contd.*

Area (acres)

Province	Bajra						Maize					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	2,880,000	2,618,000	2,188,000	2,770,000	2,806,000	2,548,000	1,791,000	2,205,000	2,136,000	2,376,000	2,612,000	2,426,000
Madras	3,384,000	3,606,000	3,273,000	3,482,000	3,673,000	(*d*)	118,000	134,000	124,000	154,000	124,000	(*d*)
Bihar and Orissa	67,000	74,000	75,000	73,000	73,000	70,000	1,661,000	1,699,000	1,714,000	1,492,000	1,656,000	1,581,000
Bombay	4,362,000	5,158,000	4,906,000	5,119,000	4,992,000	4,527,000	163,000	162,000	159,000	156,000	173,000	176,000
Sind	415,000	1,141,000	1,110,000	1,090,000	538,000	1,139,000	2,000	2,000	2,000	1,000	2,000	2,000
Bengal	6,000	7,000	6,000	6,000	6,000	6,000	95,000	97,000	92,000	95,000	96,000	88,000
Punjab	1,155,000	2,677,000	2,829,000	2,738,000	1,907,000	3,033,000	955,000	1,098,000	1,082,000	1,047,000	1,184,000	1,270,000
Central Provinces and Berar	117,000	154,000	146,000	146,000	185,000	(*d*)	(*c*) 144,000	(*c*) 150,000	(*c*) 151,000	(*c*) 156,000	(*c*)155,000	(*d*)
Burma	...	...	...	...	...	...	165,000	172,000	170,000	168,000	167,000	168,000
Assam	...	...	...	...	...	...	19,000	19,000	18,000	19,000	19,000	19,000
North-West Frontier Province	76,000	205,000	193,000	239,000	72,000	262,000	410,000	419,000	431,000	419,000	431,000	451,000
Ajmer-Merwara	(*c*)11,000	(*c*)31,000	(*c*)30,000	(*c*)39,000	31,000	52,000	(*c*) 44,000	(*c*) 68,000	(*c*) 67,000	(*c*) 71,000	60,000	60,000
Total	12,473,000	15,671,000	14,756,000	15,702,000	14,283,000	(*e*) 11,637,000	5,567,000	6,225,000	6,146,000	6,144,000	6,679,000	(*e*) 6,241,000

Yield (tons)

Province	Bajra						Maize					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	601,000	611,000	289,000	612,000	620,000	469,000	703,000	920,000	721,000	1,050,000	1,184,000	983,000
Madras	(*a*)	551,000	535,000	698,000	748,000	(*d*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Bihar and Orissa	(*a*)	(*a*)	(*a*)	(*a*)	27,000	23,000	549,000	530,000	541,000	395,000	480,000	523,000
Bombay	340,000	560,000	655,000	734,000	704,000	670,000	27,000	54,000	60,000	72,000	62,000	107,000
Sind	106,000	253,000	181,000	168,000	116,000	236,000	1,000	1,000	1,000	1,000	1,000	1,000
Bengal	(*a*)	(*a*)	(*a*)	(*a*)	2,000	1,000	26,000	30,000	24,000	27,000	28,000	26,000
Punjab	97,000	315,000	302,000	346,000	150,000	514,000	366,000	413,000	441,000	283,000	464,000	461,000
Central Provinces and Berar	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Burma	...	...	...	...	...	...	63,000	75,000	68,000	51,000	70,000	35,000
Assam	...	...	...	...	...	...	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
North-West Frontier Province	(*a*)	33,000	37,000	48,000	12,000	44,000	184,000	188,000	228,000	203,000	237,000	219,000
Ajmer-Merwara	(*a*)	(*a*)	(*a*)	(*a*)	300	8,000	(*a*)	(*a*)	(*a*)	(*a*)	6,000	19,000
Total (*b*)	1,144,000	2,323,000	1,979,000	2,606,000	2,379,300	(*f*) 1,965,000	1,919,000	2,211,000	2,084,000	2,082,000	2,502,000	2,344,000

(*a*) Not available
(*b*) Incomplete
(*c*) Taken from Agricultural Statistics
(*d*) Not yet reported
(*e*) Excludes Madras and Central Provinces and Berar
(*f*) Excludes Madras.

Note.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports or specially obtained from local authorities

No. 15.—SUPPLEMENTARY TABLE—AREA AND YIELD OF BARLEY, JAWAR, BAJRA, MAIZE, AND GRAM IN EACH PROVINCE—*concld.*

Area (acres)

Province	Gram					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	6,873,000	5,507,000	3,037,000	5,343,000	6,083,000	6,469,000
Madras	135,000	138,000	166,000	134,000	150,000	(*f*)
Bihar and Orissa	1,052,000	915,000	1,079,000	1,205,000	1,402,000	1,398,000
Bombay	372,000	475,000	453,000	486,000	594,000	627,000
Sind	76,000	75,000	98,000	111,000	141,000	158,000
Bengal	177,000	184,000	198,000	182,000	177,000	183,000
Punjab	4,100,000	3,401,000	2,849,000	5,193,000	3,665,000	5,116,000
Central Provinces and Berar	(*b*) 818,000	(*b*) 808,000	(*b*) 929,000	(*b*) 852,000	(*b*)783,000	(*f*)
Burma	40,000	34,000	42,000	48,000	64,000	68,000
Assam	1,000	1,000	...	...	...	...
North-West Frontier Province	174,000	169,000	199,000	203,000	143,000	210,000
Ajmer-Merwara	(*c*) 26,000	(*c*) 9,000	(*c*) 1,000	(*c*) 21,000	19,000	9,000
TOTAL	13,844,000	11,716,000	8,951,000	13,776,000	13,224,000	14,238,000(*g*)

Yield (tons)

Province	Gram					
	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17
United Provinces	2,493,000	1,817,000	(*d*) 551,000	1,773,000	2,025,000	2,268,000
Madras	(*a*)	8,000	(*a*)	(*a*)	(*a*)	(*a*)
Bihar and Orissa	436,000	361,000	447,000	357,000	526,000	607,000
Bombay	39,000	84,000	61,000	86,000	102,000	123,000
Sind	11,000	10,000	9,000	11,000	20,000	18,000
Bengal	46,000	52,000	65,000	44,000	45,000	49,500
Punjab	1,126,000	735,000	578,000	1,289,000	454,000	856,000
Central Provinces and Berar	244,000	280,000	190,000	247,000	238,000	(*f*)
Burma	7,000	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Assam	(*a*)	(*a*)	...	...	...	...
North-West Frontier Province	(*a*)	29,000	36,000	34,000	16,000	28,000
Ajmer-Merwara	(*a*)	(*a*)	(*a*)	(*a*)	2,000	1,000
TOTAL (*e*)	4,402,000	3,376,000	1,937,000	3,841,000	3,428,000	3,950,000(*h*)

(*a*) Not available
(*b*) Excludes gram sown with other crops
(*c*) Taken from Agricultural Statistics
(*d*) Crop poor owing to unfavourable season
(*e*) Incomplete
(*f*) Not yet reported
(*g*) Excludes Madras and Central Provinces and Berar
(*h*) Excludes Central Provinces and Berar

Note.—No forecast is prepared for the crops dealt with in this table. The figures are taken from the provincial Season and Crop Reports or specially obtained from local authorities

No. 16.—NORMAL AND ACTUAL RAINFALL (IN INCHES) IN EACH PROVINCE AND METEOROLOGICAL SUBDIVISION IN INDIA.

Provinces and Subdivisions	Normal rainfall	Actual rainfall										Variation of 1916 rainfall from normal	Percentage variation from normal
		1907	1908	1909	1910	1911	1912	1913	1914	1915	1916		
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Per cent
United Provinces—													
United Provinces, East	39·2	25·72	29·86	42·02	41·49	41·96	33·46	30·39	38·02	53·7	47·2	+ 8·0	+20
United Provinces, West	37·9	25·77	37·38	42·23	42·62	33·13	34·86	23·30	39·89	37·4	47·7	+ 9·8	+26
Madras—													
Malabar . .	127·6	156·60	131·24	138·00	121·78	114·42	151·14	111·61	134·04	119·9	131·2	+ 3·6	+ 3
Madras, South-East	35·0	47·38	30·64	36·15	36·35	32·24	34·31	35·89	37·93	38·8	34·0	— 1·0	— 3
Madras, Deccan .	24·4	19·51	20·33	26·84	33·55	18·66	25·87	20·52	21·92	31·7	40·1	+15·7	+64
Madras Coast, North	39·5	35·64	36·35	38·28	49·63	36·25	40·11	36·91	43·02	61·5	52·7	+13·2	+33
Bombay—													
Gujarat . .	32·6	33·75	35·00	34·86	35·82	13·73	41·89	41·30	39·73	16·7	32·6	0	0
Konkan . .	109·2	112·19	109·13	111·40	99·82	81·50	110·90	103·99	137·20	93·9	128·6	+19·4	+18
Bombay, Deccan .	30·8	31·07	26·78	28·65	34·87	21·27	31·37	28·02	39·38	34·5	40·9	+10·1	+53
Sind . . .	6·5	7·90	12·18	6·28	9·00	1·03	5·12	18·79	6·10	1·8	11·1	+ 4·6	+71
Bihar and Orissa—													
Orissa . . .	56·8	58·02	57·54	59·70	59·28	49·85	54·07	61·23	61·80	61·9	57·7	+ 0·9	+ 2
Chota Nagpur .	51·9	56·60	47·69	55·07	47·88	54·53	44·81	63·24	43·11	39·3	50·1	— 1·8	— 3
Bihar . . .	48·6	42·77	27·63	53·67	53·09	58·94	43·41	60·13	44·30	49·5	58·7	+10·1	+21
Bengal—													
Eastern . .	74·8	75·19	66·31	96·66	94·76	100·85	79·76	88·96	69·39	80·7	88·3	+13·5	+18
Western . .		52·07	52·69	69·96	59·07	55·11							
Central Provinces and Berar—													
Berar . . .	32·2	30·32	35·07	31·23	40·59	23·78	25·93	33·93	40·75	36·5	47·2	—15·0	+47
Central Provinces, West	45·4	38·69	46·59	39·91	47·59	40·42	40·99	39·98	44·15	50·4	57·5	+12·1	+27
Central Provinces, East	52·1	48·39	59·93	50·39	56·46	55·11	54·89	47·72	54·55	55·2	54·1	+ 2·0	+ 4
Punjab—													
East and North .	23·1	21·38	32·41	31·85	26·37	21·63	22·30	22·71	31·89	18·3	26·8	+ 3·7	+16
South-West . .	9·2	9·62	17·88	11·51	9·27	9·25	8·51	12·59	18·67	4·9	12·3	+ 3·1	+34
Burma—													
Lower Burma .	129·2	137·68	127·55	132·58	117·81	128·31	129·83	122·48	140·92	135·1	125·5	— 3·7	— 3
Upper Burma .	45·2	33·89	44·08	47·21	48·49	43·30	43·67	43·47	49·54	46·7	49·9	+ 4·7	+10
Assam . . .	98·8	96·81	89·01	89·26	105·20	117·14	101·28	105·89	87·03	112·3	96·6	— 2·2	— 2
North-West Frontier Province	16·9	18·51	27·61	18·65	22·95	20·00	15·78	14·66	30·30	15·0	20·2	+ 3·4	+20
Central India—													
Central India, West	33·6	26·41	32·64	34·08	37·85	25·80	32·71	30·22	32·94	27·0	46·9	+13·3	+40
Central India, East	38·7	33·97	51·08	39·74	41·41	44·84	37·33	31·16	40·77	38·7	48·3	+ 9·6	+25
Rajputana—													
Rajputana, West .	13·1	15·27	26·32	18·29	12·35	5·84	12·53	10·10	12·54	6·9	17·3	+ 4·2	+32
Rajputana, East .	25·2	21·61	36·75	29·12	28·72	18·29	27·39	15·65	26·36	17·4	33·6	+ 8·4	+33
Hyderabad—													
Hyderabad, North .	34·9	27·83	32·87	30·02	43·24	24·94	23·39	27·10	42·70	40·8	44·4	+ 9·5	+27
Hyderabad, South .	30·6	27·39	34·15	28·02	31·35	21·11	25·05	19·76	38·71	40·2	50·9	+20·3	+66
Mysore . . .	36·1	36·23	27·48	41·14	43·85	33·94	44·02	32·40	33·88	37·7	46·6	+10·5	+29

APPENDIX I

METHOD OF FRAMING ESTIMATES OF CROPS

There are three factors necessary for framing an estimate of outturn, namely, the area' the standard normal outturn per acre, and the fraction representing the relation of the crop reported on to the normal crop per acre.

As regards area, there exists in the villages of most provinces an agency capable of reporting the acreage of crops with great accuracy, wherever the fields have been mapped and surveyed. The tracts, for which statistics are ordinarily not obtainable, are yearly diminishing in extent ; but owing to the absence of maps or the non-existence of trained village establishments they still represent a considerable aggregate area. These tracts consist chiefly of permanently settled estates, lands held on privileged tenure, and unsurveyed areas. For these tracts the acreage as well as the outturn cannot be more than a rough estimate. Such estimates of areas, once framed, are liable to become stereotyped and repeated year after year without regard to the influence of exceptional seasons or changes in the economic condition of the tracts. In order to prevent this, provision has been made for the annual revision of these area estimates by careful comparison with the conditions prevailing in those adjoining areas of a similar character for which accurate information is available, and by means of such special enquiries as may be possible.

In dealing with the calculation of the areas under crops, two other matters demand consideration, namely, (1) whether the area returned should be the area sown or that successfully cropped, and (2) whether, when the forecast crop is sown mixed with other crops, it is preferable that the total area covered by the mixed crops should be exhibited, or that such area only should be shown as is estimated to represent the acreage covered by the forecast crop only. As regards (1), the general rule is that the returns should exhibit the areas actually sown whether the crop comes to maturity or not, the principle underlying this rule being that the failure of crop should affect not its area, but its outturn. An exception to this rule is, however, made when fields, owing to the failure of the first sowings, have been devoted to other crops. In this case the area first sown with the forecast crop may be omitted. As to (2), the areas covered by the several crops in a mixed field are estimated in various ways in the different provinces, and the estimates are based on formulæ prescribed by the provincial authorities in individual cases, as it has not been found practicable to prescribe one uniform method of calculation. For purposes of the forecasts the area to be returned must be the area covered by the forecast crop, exclusive of the area covered by the other crops with which it is mixed.

Next with regard to the standard normal outturn. A normal crop may be defined as "that crop which past experience has shown to be the most generally recurring crop in a series of years; the typical crop of the local area ; the crop which the cultivator has a right (as it were) to expect, and with which he is (or should be) content, while if he gets more he has reason to rejoice, and if less he has reason to complain;" or in other words, it is the "figure which in existing circumstances might be expected to be attained in the year if the rainfall and seasons were of a character ordinary for the tract under consideration, that is, neither very favourable nor the reverse." Briefly, it is stated to be "the average yield on average soil in a year of average character." This normal or average yield will not necessarily correspond with the average of a series of years' figures, which is an arithmetical average. The Agricultural Department in each province maintains a statement of the normal or average yield per acre of land of average quality (under the two major heads of irrigated and unirrigated land) for the several crops in each district. In order to test the accuracy of these standards of normal or average yield and to revise them, if necessary, a system of crop-cutting experiments is in force in all the provinces. Under this system plots of land of average quality are selected and the crops grown on them are cut and weighed in the presence of responsible officers of the District staff or of the Provincial Agricultural Department. These experiments have to be carried out every year in respect of all the principal crops, and in accordance with rules specially framed by the several provincial authorities. The results of the experiments are reported to the head of the provincial Agricultural Department, who on a careful scrutiny of all the reports received by him, and after such further investigations as he may deem necessary, revises or verifies the standards previously adopted for the districts or the province. This revision is ordinarily made once in five years.

The third factor—the fraction representing the relation of the crop reported on to the normal crop per acre—is what is known as the "anna estimate" or the "percentage estimate." In many parts of India the cultivators estimate the crop outturn in annas or sixteenths, as there are sixteen annas in a rupee. They take a certain number of annas to represent the normal outturn, and estimate the outturn of the year of report as so many annas higher or lower than that normal. But in some tracts sixteen annas express a bumper crop, while in others the same term expresses a normal crop, and the number of annas taken to represent a normal outturn varies between 12 and 16. Consequently the anna estimate of one tract is not always amenable to comparison or combination with that of another tract. The percentage estimate is the American system under which 100 is taken to denote a normal crop and the estimated outturn of the year of report is stated as a percentage of that crop. In 1897 a question arose as to whether the anna notation or the American notation should be used in making crop estimates, and it was strongly urged upon the Government of India that as the cultivators and

village officers entrusted with the duty of collecting data for crop reports were mostly accustomed to the Indian system, *i.e.*, the anna notation, the adoption of any other system would tend to confuse the estimate. Local Governments and Administrations were, therefore, permitted to adopt such scale of notation as might be suited to local conditions, the object being to secure that the returns should be in terms of a normal crop. But since the anna standard thus adopted would not possess any fixed or uniform value, it was laid down that in published forecasts the anna notation should not be used, the American notation being used in its stead, *i.e.*, 100 being taken to represent a normal crop and the estimated outturn being stated as a percentage of that crop, and the conversion of the anna estimate into the percentage estimate being made either by the district officer or by the provincial authorities.

When these three factors have been determined, they are multiplied into each other to arrive at the required quantitative estimate of outturn. Thus, if the area be 60,000 acres, the standard of normal outturn 500 lbs per acre, and the percentage estimate 80, the required quantitative estimate would be $60{,}000 \times 500 \times \frac{80}{100} = 24{,}000{,}000$ lbs.

The question of improving the method of framing estimates of outturn is now under the consideration of the Government of India.

APPENDIX II

METHODS OF COLLECTING THE STATISTICS PROVINCE BY PROVINCE

United Provinces. (Total cultivated area 35,200,000 acres.)

The estimates prepared by the United Provinces include all the districts of the province, except Almora and Garhwal, for which the required particulars are not available as no regular village papers are kept up by *patwaris* (village accountants) in these two districts. The area is taken from the crop statements based on field-to-field inspections, which are compiled by *patwaris* and checked by higher revenue officers. The estimates of the standard yield are based on the results ascertained from crop-cutting experiments conducted annually in selected districts. The standards, which are separate for irrigated and unirrigated crops, are revised every five years on a consideration of the results of crop-cutting experiments, and are applied to the condition of the crops reported by district officers and selected land-holders whose number exceeds six hundred.

Madras. (Total cultivated area 34,441,000 acres.)

In the Madras Presidency, the estimates relate to all districts in which the respective crops are grown. Approximately two-thirds of the cultivated land in the Presidency is Government or *raiyatwari* land, and has been carefully surveyed. All the village officers therein are appointed and controlled by Government officials. In the ordinary course of his work the village accountant sends every month to the Revenue Inspector (the officer in charge of a group of villages varying in number) a detailed statement of the sowings in his village. For those crops for which forecasts are prepared, the Revenue Inspector, who is himself a touring officer, reports to his *Tahsildar*, the area in his range under that crop, with his estimates of the average yield expressed in so many annas of the normal crop, when outturns are required. The *Tahsildar* consolidates all these figures and reports the total direct to the Director of Agriculture with, in the case of outturn, his estimated yield (also expressed in annas of the normal). The remaining third of the Presidency is *zamindari* (consisting of large proprietary estates), of which only a part has been accurately surveyed, and for which somewhat similar returns are prepared and dealt with accordingly. In other cases the Tahsildar or Deputy Tahsildar estimates the area and yield as well as he can from his own knowledge, and from reports of the estate officials. The figures for these *zamindari* areas are included but shown separately in the reports sent by the Tahsildars to the Provincial Director of Agriculture. The Native States of Pudukkottai and Banganapalle send similar reports direct to the Director for cotton only. No other Native State in the Presidency prepares any crop forecast. Thus for each forecast return 232 separate reports are received in the Director's office, where they are scrutinized and tabulated. More accurate figures of areas cultivated are obtainable at the end of the year after all the village accounts have been checked. These figures are published later in the provincial Season and Crop Report. The figures reported by Tahsildars in their final forecasts—particularly those from *zamindari* areas—are checked by a comparison with the forecast reports and the Season and Crop reports of previous years and the returns from neighbouring Government areas, and thus an attempt is made to rectify obviously inaccurate reporting. Standard rates of outturn have been determined for each crop on a consideration of the latest crop-cutting experiments and of the results on the Government farms. The Director checks the rate of yield reported by Tahsildars by estimates received from his subordinate officers and from non-officials interested in a particular crop.

Bombay and Sind (Total cultivated area 30,077,000 acres.)

The estimates for the Bombay Presidency include all British districts and Native States where the respective crops are grown to any extent. In the British districts of the Presidency proper the area under different crops is ascertained in the first instance by village officers and recorded in village returns, which are checked by circle inspectors and other revenue officers, and compiled by the former for their circles and then for the *taluka*. The *taluka* figures are totalled up for each district in the office of the Director of Agriculture of the province. For Sind this work is done by local officers, and the Director receives district-by-district figures. The information received is for villages for which regular statistics are available, the proportion of reporting area being 91·4 per cent in the Presidency proper and 99·6 per cent in Sind. From 1909-10, however, estimates for the non-reporting areas have been made so far as possible and included in the table. In the case of Native States the acreage is estimated on the best local data available. The approximate numerical strength of the reporting agency is 188 in the Presidency proper, 60 in Sind, and 33 in the Native States. No standard of yield has yet been fixed. Local estimates of crop condition are converted to quantitative figures on the basis of a formula showing the average yield of crops, which has been adopted provisionally. This formula is now being revised, the revision being based on the ascertainment of actual yield in different parts of the Presidency by careful local enquiry by officers of the provincial Agricultural Department, who are tabulating the results and comparing them for the purpose. The unit of area in the formula is the district, and dry and irrigated crops are separately dealt with. Each year's estimate of the condition of crops is prepared by the *mamladars* (or *mahalkaris* where the taluka is sub-divided) from notes which they make and from reports from village accountants and circle inspectors. The estimate is sent direct to the Director of Agriculture, who, in the light of the general prospects of the season, makes the quantitative calculations. For Sind there are no formulæ, and all the necessary information is obtained from the district officers in the form of estimates on the basis of twelve

Note.—The cultivated area shown in the margin represents the average net area actually sown with all crops in each province during the three years ending 1915-16.

annas for a normal crop, together with quantitative equivalents gathered from general experience. For the Native States condition estimates are obtained, and the formulæ for adjoining British districts are applied.

Bihar and Orissa. (Total cultivated area 25,974,000 acres.)

The estimates for Bihar and Orissa relate to all the districts of the province where the respective crops are grown. Survey and settlement operations have been completed in all the districts except three, and in these districts the settlement figures serve as a check on the estimates of acreage based on the information furnished by the police. In the absence of any revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. In the district of Sambalpur, the acreages under crops are revised annually by the Land Records staff by field-to-field inspection. The system of making crop-cutting tests, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in the districts of this province for some twenty-three years, but sufficiently trustworthy figures of yield have not yet been obtained from these tests to enable Government to accept them as standards. The estimates, therefore, of yield given in the forecasts are based on standards adopted provisionally by the provincial Department of Agriculture on the basis of information obtained from other sources.

Bengal. (Total cultivated area 24,644,000 acres.)

The estimates for Bengal relate to all the districts of the Presidency where the respective crops are grown. In the absence of any revenue agency in the province, the figures are based mainly on rough approximate estimates made by district officers, and are more or less conjectural. The district officers obtain information from the sub-divisional officers through the agency of the police. The system of making crop-cutting experiments, as in other provinces, over a series of areas and seasons for the ascertainment of standards of yield has been in force in Bengal for the last twenty-two years, but sufficiently trustworthy figures of yield for all the crops have not yet been obtained. The quantitative estimates, therefore, of yield given in the forecasts are based on standards provisionally adopted. In the case of rice, jute, and sugarcane the standard rates of yield are those arrived at from crop-cutting experiments.

Central Provinces and Berar. (Total cultivated area 25,004,000 acres.)

The estimates for the Central Provinces and Berar relate to all the British districts of the province in which the respective crops reported on are grown. As regards the Native States of the province, reports on wheat only are furnished by the two States of Khairagarh and Nandgaon. No information is available for any other State. The figures of acreage for cotton, sesamum, rice, and sugarcane are estimates based on reports furnished by the local officials of the Land Records staff. The figures for wheat and linseed represent the actual areas sown with these crops as disclosed by field-to-field inspection by *patwaris*. The reporting agency consists of 235 revenue inspectors with, on an average, 22 *patwaris* working under each inspector. Each *tahsil* has usually 4 revenue inspectors. Standards of outturn were framed for each crop from the results of crop-cutting experiments on selected fields under the supervision of responsible and selected officials during the years 1884-85 to 1887-88. These standards have been revised from time to time on the basis of the results of crop-cutting experiments since made, the last revision having been made in 1912. The yield expressed by the people in terms of annas in the rupee is converted into percentages, 13·3 annas, or a normal crop, being taken to be equal to 100. A full crop or 16 annas is denoted by 120, and a bumper crop or 20 annas by 150. All deductions based on the standards are made by the provincial Director of Land Records and Settlements from the year's figures furnished by the district officers, who are supposed to bear in mind the standards when estimating the yield of the season.

Punjab. (Total cultivated area 24,396,000 acres.)

The estimates for the Punjab relate to all the British districts in which the respective crops are grown. As regards the Native States of the province, reports on wheat and cotton are furnished by all the States in which the two crops are grown to any considerable extent. No estimates for any other crop are prepared by any Native State. The figures of area for all the British districts up to 1912-13 were based on actual measurements by the village revenue staff. Estimates of yield were recorded by district officers after personal enquiry from *tahsildars* and leading agriculturists. The total number of agriculturists consulted by the district officers and *tahsildars* must amount to several thousands. From 1913-14, however, this method is followed only in districts in which the respective crops are grown to a considerable extent. For other districts the provincial Director of Land Records prepares conventional forecasts based on the actual average area figures for the previous five years, and an assumed average outturn as determined by him to meet the character of the harvest.

Burma. (Total cultivated area 14,283,000 acres.)

The estimates for Burma relate to all the districts of the province in which the respective crops reported on are grown. The figures for the districts in which the crops are grown to a considerable extent are based on regular reports, furnished by district officers, while those for the remaining districts are based on rough estimates prepared by the Commissioner of Settlements and Land Records. For the districts from which regular reports are received, the figures of area are obtained from the assessment rolls prepared by revenue surveyors. The original information about the yield is obtained from township officers, inspectors of Land Records, and from the more important of the Land Revenue subordinate officers. In this way the estimate of each district is based on the information furnished by some thirty or more persons. The figures of both area and yield are tabulated by the Superintendent of Land Records and

checked by the District Officer. The Commissioner of Settlements and Land Records compares the estimated yield with a standard representing the normal yield, which was fixed after an extensive series of experimental crop-cuttings by settlement officers.

Assam. (Total cultivated area 5,869,000 acres.)

The estimates for Assam relate to all the districts in which the respective crops reported on are grown to any extent, excluding some of the unimportant hill districts in certain cases. The information is received from district officers, who in their turn obtain figures from the district Land Records staffs in the case of the temporarily-settled areas and from zamindars in the case of the permanently-settled portion of Goalpara. In the permanently settled part of Sylhet the figures for jute are those submitted after actual inspection by the village *choukidar panchayats*, and for tea those reported by the garden managers, while for all other crops estimates have been framed by the district officer from the actual areas in the temporarily settled parts applied, on the basis of population, to the rest of the district. The figures are checked only in the temporarily settled tracts by the circle Sub-Deputy Collectors; in the permanently settled districts of Sylhet and Goalpara there is no valid check at all. The estimates of outturn are based on the normal yield obtained from the results of crop-cutting experiments.

North-West Frontier Province. (Total cultivated area 2,312,000 acres.)

The estimates for the North-West Frontier Province relate to all the districts of the province in which the respective crops reported on are grown, including the Tochi agency in the case of wheat, cotton, and sugarcane, and the Kurram agency in the case of wheat and cotton. The figures of area are based on actual measurements made by the *patwaris* in their field-to-field inspection at each harvest. They are further checked by higher revenue officers. The estimates of the standard yield are based principally on data derived from a large number of crop-cutting experiments made during the progress of settlement operations. They were framed for each assessment circle, which is the unit of area, and separately for lands irrigated by canals, by wells, for alluvial (*sailab*) lands, and for lands entirely dependent on rain. The standards are applied to the estimates of condition of crops received from the district officers, who frame their estimates in consultation with local agriculturists. The exact number of agriculturists consulted by the district officers is not available, but it must necessarily be several hundreds.

Ajmer-Merwara. (Total cultivated area 316,000 acres.)

The estimates for Ajmer-Merwara relate to the whole of the district. So far as *khalsa*,* *jagir*, and minor *istamrari* villages are concerned, the *patwari* is responsible for making field-to-field inspections of every village in his circle at each harvest. These inspections commence on 1st September for the autumn harvest and on 1st February for the spring harvest. The *patwari* notes down the results of his local inquiries and inspections in his field book. A certain percentage of the entries made by the *patwari* is checked and corrected, when necessary, by the *girdawar* or *kanungo*, who also inspects the crops at each harvest. The tahsil officers further test a certain number of entries, and the sub-divisional officer also makes a general inspection of crops at each harvest. As soon as the inspection of the harvest is complete an abstract statement of area and outturn is compiled separately for each *girdawar's* circle and tahsil, and these statements are then consolidated for the three sub-divisions in the district office. An assumed normal outturn per acre for each crop has been fixed at settlement. Crop estimates are annually made by the revenue officers and the results recorded. These sets of figures give a useful check on the outturn estimates made by the *patwaris*. The exact area sown in the sub-divisions is obtained from the abstract statements. In the large *istamrari* estates the preparation of the field books is done by the estate officials. These field books contain fairly accurate information in regard to wheat, the outturn of which in maunds is generally appraised for the purpose of payment of the cultivators' rent; but as regards cotton and sesamum the figures are conjectural, as no crop-cutting experiments are made, the rents being charged in cash. The Government agency does not supervise the collection of figures in large *istamrari* estates.

Coorg. (Total cultivated area 139,000 acres.)

The estimates for rice furnished by Coorg are based on the results of annual crop inspections and experiments. Crop inspections are made by each *shanbog* for his circle under the supervision of the *parpattigar* and the detailed particulars entered in the crop inspection registers and summarised in the crop abstracts, the totals of which are compiled in the office of the Deputy Director, Land Records and Agriculture. About 50 crop experiments are conducted annually by subordinates of the Revenue Department and *subedars* (*tahsildars*) and also a few by the Deputy Director of Land Records and Agriculture, in whose office the estimates of yield, given in the forecast, are calculated on the basis of the average for the province.

Central India.

In the Central India States estimates are framed for wheat and cotton. The methods differ with different States. In most States the acreage returns are prepared by *tahsils* from the field measurements of the *patwaris* and then compiled for the whole State. In some cases the outturn estimates are similarly compiled after check on the spot by the higher revenue officials in consultation with the cultivators; in others they are merely an approximation from the acreage figures; in a few States fields are selected in the different circles as bearing an average yield, the crop is cut and weighed, the outturn for the circle is calculated from the result, and the totals of the circles form the return for the State. Finally, each Political Agent compiles the returns of the States in his political charge into an Agency return, each of which is shown separately in the return for Central India.

---

* *Khalsa* villages are those which pay full revenue to Government.

Rajputana. The estimates for wheat and cotton furnished by the States in Rajputana are generally defective in consequence of the absence of figures for unsurveyed areas and privileged tenures in many cases.

Hyderabad. The estimates for wheat, cotton, and oilseeds furnished by the Hyderabad State excluded until 1902-03 *jagir* and other revenue-free lands or privileged tenures; since then estimates for these areas have been procured as far as possible and included in the statement.

Mysore. (Total cultivated area 6,223,000 acres.) The estimates furnished by the Mysore State relate to all the districts of the State in which the respective crops are grown. As regards area the information is based on the entries made by the *shanbog* (village accountant) in his crop inspection book and checked by the higher revenue officers. The outturn is noted by the *shanbog* in terms of annas (16 annas being taken for a normal or 100 per cent crop) from which the total yield is determined by reference to the standard normal outturn per acre fixed for each taluk. The figures are finally scrutinized and consolidated in the Revenue Commissioner's office.

APPENDIX III

DATES PRESCRIBED FOR THE ISSUE OF THE ALL-INDIA FORECASTS OF CROPS BY THE DEPARTMENT OF STATISTICS, INDIA

RICE—

1st forecast	October	20
2nd „	December	20
Final „	February	20

WHEAT—

1st forecast	January	31
2nd „	March	15
3rd „	May	30
Final „	August	10

COTTON—

1st forecast	August	15
2nd „	October	15
3rd „	December	15
Final „	February	15

LINSEED, RAPE AND MUSTARD—

1st forecast	January	1
2nd „	March	15
Final „	June	1

SESAMUM (*til or jinjili*)—

1st forecast	September	1
2nd „	October	20
Final „	January	15
Supplementary forecast	April	20

GROUNDNUT—

1st forecast	October	20
Final „	February	15

INDIGO—

1st forecast	October	15
Final „	December	20

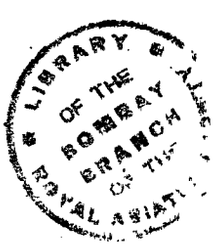
SUGARCANE—

1st forecast	August	20
2nd „	October	20
Final „	February	16

INDEX.

	Pages.
American notation	21, 22
Anna estimate	*ib.*
Area—	
Bajra (*Pennisetum typhoideum*)	18
Barley (*Hordeum vulgare*)	17
Cotton (*Gossypium sp.*)	3, 6, 12
Gram (*Cicer arietinum*)	19
Groundnut (*Arachis hypogæa*)	4, 6, 16
Indigo (*Indigofera Sumatrana and I. arrecta*)	*ib.*
Jawar (*Sorghum vulgare*)	17
Jute (*Corchorus sp.*)	3, 6, 13
Linseed (*Linum usitatissimum*)	*ib.*
Maize (*Zea mays*)	18
Rape and Mustard (*Brassica sp.*)	4, 6, 14
Rice (*Oryza sativa*)	2, 6, 9
Sesamum (*Sesamum indicum*)	4, 6, 15
Sugarcane (*Saccharum officinarum*)	2, 6, 11
Tea (*Camellia thea*)	*ib.*
Wheat (*Triticum sativum*)	2, 6, 10
Area of crops, how ascertained	21, 23—26
Bajra—	
Area	18
Yield	*ib.*
Barley—	
Area	17
Yield	*ib.*
Charts illustrating the growth of production of crops	*frontispiece*
Cotton—	
Area	3, 6, 12
Consumption	3, 12
Net exports	*ib.*
Yield	3, 6, 8, 12
Crop-cutting experiments	21
Dates of publication of forecasts	27
Development of the estimates	1
Gram—	
Area	19
Yield	*ib.*
Groundnut—	
Area	4, 6, 16
Yield	4, 6—8, 16
Indian Notation	21, 22
Indigo—	
Area	4, 6, 16
Yield	4, 6, 8, 16
Jawar—	
Area	17
Yield	*ib.*
Jute—	
Area	3, 6, 13
Consumption and Exports	3, 13
Yield	3, 6, 8, 13
Linseed—	
Area	3, 6, 13
Yield	3, 6—8, 13
Maize—	
Area	18
Yield	*ib.*
Method of framing estimates of crops	21, 22
Methods of collecting statistics	23—26
Mixed crop, treatment of—	21
Mustard (see Rape and Mustard)	
Normal crop, definition of—	21
Normal rainfall	20
Normal yield per acre	8
Notation for making crop estimates	21, 22
Percentage estimate	*ib.*
Rainfall, normal and actual	20
Rape and Mustard—	
Area	4, 6, 14
Yield	4, 6—8, 14
Rice—	
Area	2, 6, 9
Yield	2, 6—8, 9
Season, leading features of—	1—4
Sesamum—	
Area	4, 6, 15
Yield	4, 6—8, 15
Source and scope of the estimates	1
Standard normal outturn	21
Sugarcane—	
Area	2, 6, 11
Yield	2, 6—8, 11
Tea—	
Area	2, 6, 11
Yield	2, 6, 7, 11
Wheat—	
Area	2, 6, 10
Yield	2, 6—8, 10
Yield—	
Bajra	18
Barley	17
Cotton	3, 6—8, 12
Gram	19
Groundnut	4, 6—8, 16
Indigo	4, 6, 8, 16
Jawar	17
Jute	3, 6, 8, 13
Linseed	3, 6—8, 16
Maize	18
Rape and mustard	4, 6—8, 14
Rice	2, 6—8, 9
Sesamum	4, 6—8, 15
Sugarcane	2, 6—8, 11
Tea	2, 6, 7, 11
Wheat	2, 6—8, 10
Yield per acre—	
Cotton	8
Groundnut	7
Indigo	8
Jute	8
Linseed	7
Normal	8
Rape and Mustard	7
Rice	*ib.*
Sesamum	*ib.*
Sugarcane	*ib.*
Tea	*ib.*
Wheat	*ib.*

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
8, HASTINGS STREET



00134321

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020